

# IR PTZ DOME CAMERA

## User Manual

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# IR PTZ DOME CAMERA

## 1. Auto Tracking Dome Order Table

<b>SORT</b>	<b>ORDER</b>	<b>FUNCTION</b>	<b>ANNOTATION</b>
Scan	CALL 75-80	Run Scan1-6	Scan setting in Menu—PTZ setting
Pattern	PRESET 81-84	Setup Pattern Scan 1-4	
Pattern	CALL 81-84	Run Pattern Scan1-4	
Frame Scan	CALL 92	Run F Scan	Speed.time in Menu—other scan setting
Auto Scan	CALL 99	Run A Scan	Speed in Menu—other scan setting
Alarm	CALL 89	Relieve Alarm	
<b>Track</b>	<b>CALL 88</b>	<b>Enter Track</b>	
Menu	CALL 95	Enter Menu	
System Restart	CALL 94	System Restart	

## 2.Safty measures

### 1. Qualification for installation and debugging personnels

- ① Having qualification certificiates of installing and debugging CCTV system.
- ② Having qualification certificates of aloft working.
- ③ Having the basic knowledge and operation skills of low voltage wires and low voltage electronic wires.
- ④ Please read the manual and understand all the contents.

### 2. Requirements for lifting appliances

Using safe lifting appliances which are fit for installing places and ways of dome.

## 3. Attention matters

### 1. Careful transportation

Protect the damages from heavy pressing, strong staking and soaking during the transportation and storage. This products have to be carried with split packages. Both in delivering by suppliers and on the returning way to factories to debugging, any damage happened because of comprehensive transport after assembling is out of the scope of guarantee repair.

### 2. When malfuctions happen

When there are fume and unusual odor coming out of this product, please shut the switch, turn off the power wire, stop using and contact our company.

### 3. Be sure not to disconnect and refit

Be sure not to open the body, or it may lead to danger or damage.

If any inside setting or debugging is needed, please contact our company.

### 4. Be sure not to put other articles into this products

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Be sure that there is no medal or tinder in the camera. If there is any foreign body, it may lead fire, short circuit or other damages. If water or other liquid come into camera, please shut the power and ture off the power wire and contact our company.

Carefully protect the camera from rain and seawater.

5. Carefully carry and put the product aside.

To avoid damage, don't drop it or lash or shake it strongly.

6. Set this product far away from electric field and magnetic field

If it is set near TVs, wireless transmitters, calutrons, electric motors, transformers, speakers which produce electromagnetic field to interfere with the images.

7. To avoid moisture and dust

To avoid the damage to camera, don't put the camera in some places where there is a lot of lampblack and steam or high temperature and dust.

8. To avoid high temperature

Don't set this product near heating stoves and other heat sources, such as spotlights.

Don't set this product in the sun, or it will make it deformed, faded and so on.

When it is set near ceiling, kitchen and boiler room, it will get high temperature.

9. Cleansing

Wipe the dirt away with soft cloth. Wipe the fouling by sofe cloth with washing agent on it when it is wired out, then dry it with dry soft cloth.

10. Don't aim at hard light articles.

11. Use the products according to work environment requirements

Environment temperature: -40~+60 °C

Humidity: <90%

Atmospheric pressure: 86~106KPa

Alternating current: 24V/3A,50/60HZ

## 4. Main feature

- 10PCS Osram lights 150m ir distance.
- In 4X zoom low-beam open.If more than 4X zoom high-beam open
- Camera module and ir lights isolation design
- Aluminium ir lights board fully next to shell, keep 45°C of the body.
- LDR is isolated with ir lights and camera.

### 1. Built-in decoder

☐ Programmable Digital design,keep the data or action after power outage .

☐ Integrated design,high reliability

☐ Memory protected when power outage:the dome auto resumes its prior position before the power outageafter reboot.

☐ Power up auto run funcion,setting automatically resumes its prior position or action before the power outage,run

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home position, preset, cruising tracks, pattern scan, right&left scan, frame scan

- ☐ Leisure auto run function, run home position, preset, cruising tracks, pattern scan, right&left scan, frame scan.
- ☐ 8 channels timing function, select timing startup preset, auto cruising, pattern scan, auto scan ect. actions (appoint type dome)
- ☐ 256 presets saved at casually
- ☐ Auto cruising function, 6 cruising tracks, each cruising track set up 18 preset positions, set staying time of each preset position and scan speed by menu.
- ☐ 4 pattern scan, each piece can record 500 minutes
- ☐ Three dimensional position magnify, Point and magnify, point by mouse and frame the object, then it display in the centre of screen and magnify.
- ☐ coordinate display, display current flip and pan angle and lens magnify times.
- ☐ Support RS485 Bus interface.
- ☐ 8 privacy masking zones (zone masking)
- ☐ Hiding the title information (except dome title)
- ☐ Timing Color/B&W Auto Shift
- ☐ Time, temperature display and time calibrated function
- ☐ Soft address switch amend function, soft protocol and soft baud rate: amend front address switch of the dome by back controlling equipment, setup according to actual needs after installing all domes.
- ☐ Support broadcast address, the NO.255 is broadcast address.
- ☐ Front equipment malfunction information feedback: transfer front malfunction information to back command centre through video signal that the users find cause of equipment malfunction conveniently.
- ☐ Alarm linkage, 7 alarm input, 2 alarm output

## 2、Built-in pan-tilt

- ☐ Exact driver, run placidly, sensitive response, accurate definition.
- ☐ Integrated design, compact fabric
- ☐ Ingenious mechanical driver device, support Pan 360° continuously rotate, without monitor blind points.
- ☐ Horizontal 0.25°/s slowly rotate, image not quiver, maximum rotate speed 200°/s
- ☐ Vertical 180° continuous monitor.

## 3. Built-in integrated digital color camera which takes it's own zoom lens, high

- ☐ auto focus
- ☐ auto light control
- ☐ auto white balance
- ☐ auto color/B&W shift

## 4. Screen menu

- ☐ Chinese & English menu
- ☐ Password protected
- ☐ Display the control protocol, address code, baud rate and dome own checking information
- ☐ Setting Chinese preset, dome title, scan title

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- ☐ Support Chinese spelling input, location code input and capital & lowercase letter and number input
- ☐ Setting manual operation with wide scale, catch target accurately.

## 5. Work environment, electrical index

Environment temperature: -40~+60 °C

Humidity: <90%

Atmospheric pressure: 86~106KPa

Alternating current: 24V/3A, 50/60HZ

## 5. Function introduction and operation guide

### The setting of control protocol, camera type and dome address code.

There are two pushwheel switches SW1 and SW2 under the driver. SW1 is used to set baud rate and control protocol, while SW2 is used to set address code.

Supports PELCO-D/P protocol and three baud rates like 2400/4800/9600, and can be set by SW 1, 2.

### Power check

When the dome is powered on, the camera automatically moves towards horizontal and vertical direction, the screen displays auto-check normally when it checks the pan and vertical origin point, the screen shows horizontal error or vertical error if it does not check the pan and vertical origin point, then check the camera, the screen displays the type or normal of the camera if auto identified, ensures the dome runs normally through auto-check. At the same time, screen displays all dome information. They always display until operate the dome.

Display information:

```
xxxxxx CORP
HTTP:xxxxxxxxx
SOFT VERSION:2.1
ADDRESS:001
PROTOCOL:PELCO D
BAUDRATE:2400
REFERENCE:OK
xxx CAMERA
RS485 OK
```

If setting power action or Leisure action, the dome will auto run its prior action when boot or over leisure time.

### Focus/rotate speed auto matching

The dome's fast response possibly makes the image move quickly and causes the loss of the image only through slightly operating the joystick when manually adjusting the long focus. However, the dome can automatically adjust the position of pan/tilt and vertical rotation speed and make it easy to operate the objective tracing manually.

### Auto flip

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When the camera tilts downward and goes just beyond the vertical position, the dome rotates 180 degrees, then flips up 90 degrees, can see the rear scenery directly. When the dome rotates (flips), the camera starts moving upward as long as you continue to hold the joystick in the down position. Once you let go of the joystick after the dome rotates, joystick control returns to normal operation. The auto-flip feature is useful for following a person who passes directly beneath the camera.

In screen menu, users set the 'AUTO FLIP' in 'PAN-TILT' PTZ setting data to 'ON', the above function is ok. System defaults 'ON'

## Power up act

Power up act is a prearranged one that starts as soon as the dome is power up, such as pattern tour.      cruising scanning, preset and automatic scanning, and also put it back automatically to the situation before power cut.

This function could be realized by 'Power up act' item in the menu.

Sometimes dome will be accidentally stopped by some irresistible factors in monitoring system. For instance, the dome is back to reset when systematic power cut happens,      the dome may stop at an angle that it should not watch, power up act is very important at that time.

## Leisure time

Leisure time mean that dome waiting orders after a period time, it automatically perform one promissory action, such as pattern tracing, cruising scan, preset point, auto scan, etc., actualize to intelligently monitor.

Through setting Menu 'Self act' and 'Leisure Time' to realize this function.

In the monitor system, sometimes because of nonresist factors, which can stop current action accidentally, such as the dome goes into restoration state shortage the power, or goes into waiting orders state when users go away so that the dome possibly staying an unsuitable looking angle. The Self act and Leisure time are very important at this time. Time is 3 seconds to 100 minutes

## Setting and call preset position

Preset function is that dome can deposit the position data of currently PTZ's pan angle, tilt angle and camera's lens zoom in the storage, users can deposit and call preset position expediently and quickly through controlling keyboard to adjust the PTZ and camera towards its position, this dome support 256pcs preset position.

## Auto cruising

Auto cruising is a built-in function of the dome, which let the dome automatically cruising according to definite sequeue in a group of many preset points, can set staying time of preset and the running scan speed.

This dome has 6 groups of cruising queue, every group can set 18pcs points. Cruising speed, preset and staying time can be adjusted by following sub-menu of 'PAN/TILT' → 'TOUR SCAN', call 75<sup>st</sup>-80<sup>th</sup> preset point to run 6 groups of auto cruising queue separately.

## Auto scan function

Auto scan is the built-in function of camera of intelligent dome, which can setup right and left limited position, only

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one outside order can let the dome move repeatedly according to the prior setting of menu between two limited position,so relize to auto cruising when no users operate it.

Call 99<sup>th</sup> preset to realize this function.

## **Other scan**

Other scan is the built-in special scan function,which can auto pan scan several seconds through prior setting speed,stopping several seconds,then scan again.This cycle scan to realize cruising without users operation.Setting data by sub-menu of 'PAN/TILT'→'OTER SCAN'.

Call 98<sup>th</sup> preset to realize this function.

## **Pattern scan**

Pattern scan is the built-in function of camera,which can record the running tracing of the dome.It can record up.down.left.right.lens and call preset.The dome runs repeatedly through recorded running tours when perform pattern scan,this dome can be set 4 pattern tours.Each tour can record at least 5-500 minutes.

Users can set 4 tours through calling 81<sup>th</sup>,82<sup>th</sup>,83<sup>th</sup> , 84<sup>th</sup> preset apartly.Such setup 1<sup>st</sup> tour:

1. Call 81<sup>th</sup> preset,screen display 'SAVE PATTERN 1'.
- 2.Operate Pan up.down.left.right,or lens.or call preset.
- 3.Then call 81<sup>th</sup> preset just conserve all action performed by second step,finish setting..

Perform 3 tours partly through calling 81<sup>th</sup>,82<sup>th</sup>,83<sup>th</sup> , 84<sup>th</sup> preset.Display running on screen,such as display 'RUN PATTERN 1 ' when calling 81<sup>rd</sup> preset.

## **Soft address amend function and soft Baud rate**

Amend front address switch of the dome through back controlling equipment,reset address of every dome according to actual need after installing all dome.

## **Support broadcast address**

255<sup>th</sup> is broadcast address,the back controlling equipment can use this address to control random dome in system wherever the address currently.

## **Front equipment malfunction information feedback**

Transfer the front malfunction information to back command centre through video signal that the users find cause of equipment malfunction conveniently,the screen display 'video frequency' when the camera loses the video frequency.

## **Three-dimension position magnify**

Point or frame the object by mouse,then it displays in the center of screen and auto magnify when users use DVR or computer soft roof controlling the dome..Accelerateing orientation of monitor object for users.

**Privacy masking setting(this function depends on camera type,this function is inefficacious if the camera has no this function )**

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Users can use black shadow to mask privacy zone by 'CAMERA' → 'PRIVACY', this dome supports 8 privacy protected zones.

## Alarm linkage

The dome perform prior setting action when it receives the outside alarm signal (can select no action, call preset, pattern scan, auto cruising, etc., also can select closed and assistant switch AUX1 or AUX2) until cancel alarm. The dome can set 6 routes alarm input at most and 2 routes alarm output.

Set relational data by 'ALARM'.

## Longitude and Latitude display function

Dome screen display the current pan/tilt angle of the dome, easy to know current location for observer. Through 'DISPLAY SETUP' → 'ORIENTATION' menu to ON or OFF display.

## Zoom control

Users can adjust far and near focus through 'WIDE/TELE' on keyboard or matrix, perform 'WIDE' to get full view, or perform 'TELE' to get feature.

Adjust zoom speed under 'CAMERA' → 'ZOOM SPEED' menu, '007' is top speed.

## Focus control

When system defaults auto focus and change focus camera will auto adjust focus according to get legible image, users also can manually focus to get the expectant image. Users can manually adjust focus 'NEAR/FAR' in keyboard, 'NEAR' focus near, 'FAR' focus far. Adjust zoom speed under 'CAMERA' → 'ZOOM SPEED' menu, '007' is top speed.

Automatically resume auto focus through operating zoom lens or moving the position when it is in the position of manual focus.

The camera can't focus the object as followed:

1. Target is not the centre of the image.
2. Observation the target near and far at the same time, can not be clear.
3. Target is a strong light object, such as FI light, spotlight and so on.
4. Target is behind the glass with beads or dust.
5. Target moves too fast.
6. Target is very large such as the wall.
7. Target is too dark or vague itself.

## Iris control

System defaults Auto Iris.

Camera can rapidly adjust size of Iris, through the automatically induct the changing of environment ray, and thus make the brightness of deferent image stable.

Users can change the auto Iris size manually through the keyboard 'OPEN/CLOSE' to get required brightness. 'OPEN' iris adjusted lager, brightness changed higher, 'CLOSE' iris adjusted smaller, brightness changed



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lower. Dome locks current iris position when it is in manual iris. Users can resume the Iris into auto focus through performing joystick up down left and right. (Suggest users use auto Iris)

## **Color/B& W Auto Shift**

The camera will automatically shift CCD light level according to various lighting conditions.

Such as: Use common light to insure vivid colored image because of the enough light level by daylight. At night it will automatically adjust to low light level and displays clearer black & white view.

Users open or close 'Auto ICR' through 'Camera' -> 'Other' menu, open or close 'ICR'.

## **Automatic backlight compensation**

Camera sub-area can carry out auto back light compensation. Under a strong light background, camera will auto compensation light for the darker object and adjust daylight to the bright background. In order to avoid making the image lack fidelity by the back line is too bright, and the object is unable to recognize because of darkness, thus gain ledible image.

Users can open or close backlight compensation through 'Camera' -> 'Exposure' -> 'Back Light'

Note: The camera can realize the function of the backlight compensation only when it is in the auto Iris, system defaults 'OFF'.

## **6. Auto track and manual track (special for track dome)**

Track dome have two modes, including auto track and manual locked track.

### **1. Auto track**

Enter auto track mode by call 88th preset.

Under autonomous mode, when a moving object enters the field of view, track dome will detect it, and trace its movement locus and pull the object in the middle of the field of view all the time. Exit the auto track mode when users have any manual operation, the dome will return to the original detection point when the tracking target is out of defined area.

The selection of tracking target:

Auto track mode can select two track algorithm, track the target which one of the most Vigorous movement and the first enters the field of view. Users can select in 'MAIN MENU' -> 'TRACK' -> 'TRACK TARGET'

Sensitivity setting:

The sensitivity of auto track divided into low, medium, high and very high, select in 'MAIN MENU' -> 'TRACK' -> 'TRACK SENSE'. Display and close the Assisted information: including the display and colse of cross centre, track window, select in 'MAIN MENU' -> 'TRACK'.

Track alarm:

When the object enters the field of the view, users can set alarm linkage by menu after starting the track.. Select in 'MAIN MENU' -> 'TRACK' -> 'TRACK ALAM'.

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## 2. Manual locked track

The users select the object in the field of view, move the object to the middle of the field of view, pressing 'OPEN' key, the track dome enters manual locked mode, the dome will trace the motion path of this target by itself after that. It will exit manual track mode when there is any manual operation.

Motion detecting and path tracing of track dome are achieved by high-speed DSP. Advanced motor control algorithm makes the track fast and smooth. It is also convenient to use by choosing the mode of Auto/manual, area track.

Sony 480 camera

- the speed of track

1X zoom maximum track speed

Horizontal maximum track speed: 60 Degree/Second

Vertical maximum track speed: 60 Degree/Second

Calculation formula: Maximum Track Speed (meter/second) = Target Distance (meter) \* 1.6

Maximum Track Speed (k/h) = Maximum Track Speed (m/s) \* 3.6

Target Distance	Maximum Track Speed (m/s)	Maximum Target Movement speed (k/h)
5m	8m/s	28.8k/h
10m	16 m/s	57.6 k/h
20 m	32 m/s	115.2 k/h
30 m	48 m/s	172.8 k/h
40 m	64 m/s	230.4 k/h
50 m	80 m/s	288 k/h
100 m	160 m/s	576 k/h

- Precision of Track

Still precision of track (still targets): 0.2 degree (±1 pixel)

Moving track (moving targets): 0.2 degree (±1 pixel)

- Area track: 4 areas are available.

## 3. Motion detection and give an alarm ( Special for track dome)

1. Intrusion Detection
2. Auto tracking dome can detect the features of moving object when it intrude into the vision and give an alarm.
3. Unattended Baggage Detection
4. Tracking dome will detect and give an alarm when package, debris, baggage is deposited or appears in a

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protection area.

5. Moving object removal detection
6. Tracking dome will detect removed object automatically and give an alarm when the object is removed or took away in the protection area.
7. Illegal vehicle stopping Detection
8. When the vehicle stopped in the protection area illegally the auto tracking dome will detect it and give an alarm.
9. Loitering Detection
10. Auto tracking dome will detect and give an alarm or do other actions when the object and some person loitering for a long time or surpassed the specified time.

## 7. Intelligent analysis (special for track dome)

The dome can analyse video sence to judge if the foreign object bursts in or not.Can select alarm output when the foreign object bursts in(The first alarm output,the second alarm output,two alarm at the same time ) or video image display information'have (or not have) foreign object'.Can be set 3 video analysis sence,corresponding 111th ,112th,113th preset,every sence can set 3 erea,dome will analyse if there have foreign object burst in set erea.

## 8. Installing preparation

### 11. Basic requirements

All the electric work must obey the latest electric, fireproof and other rules;

Inspect if all the attachments are complete according to packing lists and make sure that all the application places should match installation ways. If they don't match, please contact the supplier. Please use this product according to the requied working environment.

### 12. Check the installation space and the strength of structure of installing place

Be sure that there is enough space for installation of this product and its attachments.

Be sure that the carrying capacity of ceiling, wall and bracket could support the total weight of this product and its attachments.

It requires 4 times safety factor.

### 13. Cable preparation work

Choose cables needed according to the distance of transportation

The minimum specification requirements of visual coaxial cables: 1) 75Ωimpedance; 2) all copper core wire; 3) 95% braid copper net for shielding.

Domestic type	International type	Maximum distance(foot/meter)
RG59/U	RG59/U	750ft (229m)
5C-2V	RG6/U	1,000ft (305m)

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7C-2V	RG11/U	1,500ft (457m)
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☐ ☐ RS485 communication cable (see Appendix III)

☐ ☐ 24VAC communication cable (see Appendix IV)

## 14. Set the pushwheel switches up

Set the pushwheel switches up according to the control protocol and dome address.

## 15. Please keep all the packing materials of dome

After open the packages, please keep all the original packing materials to pack it again and send it to the agent or the factory when there's something wrong. Non-original packing materials may lead to some accidental damage in the transportation that will cost extra fee.

## 9. Installation method guide

### Installation conditions

Wall mounting dome applied in indoor or outdoor with hard wall structure.

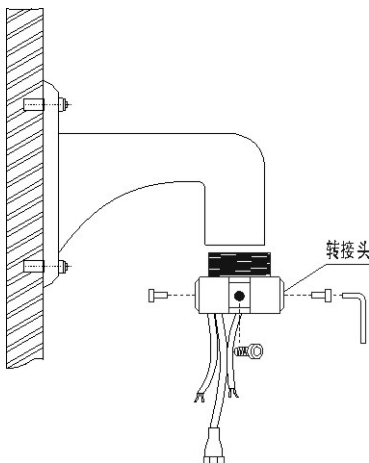
(1) The thickness should be thicker than screws

(2) The wall can endure 4 times weights of dome at least

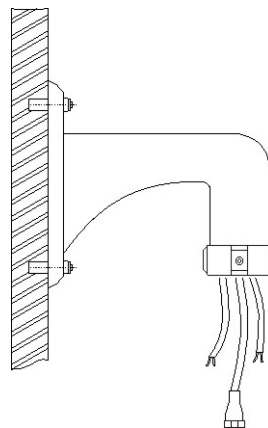
### Housings Installation:

**Note:** If you install outdoor dome, should ensure that the sealing performance of the dome and avoid hot or humid environment.

(1) First of all, you should lead the lines from the bracket and then fix the bracket on the wall. Second, wind the adapter with raw material strip and screw into the bracket. Last, screwed into 3 SHCS on the adapter (Note: Don't screw in the end, just let the connector of dome can insert).

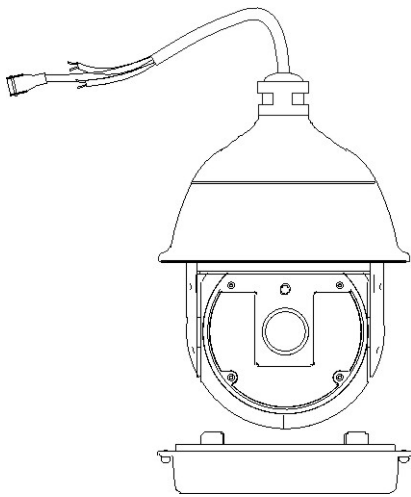


(2) Loosen the IR dome on both sides of the two flathead screws and open the decorative laps, you will see 2 DIP switches on the dome classis.

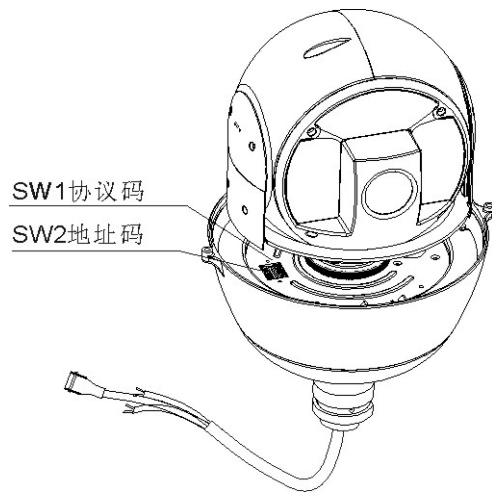


(3) Set up the DIP switches SW1 and SW2, you can decide the dome address and control protocol. (Reference switch setting tables).

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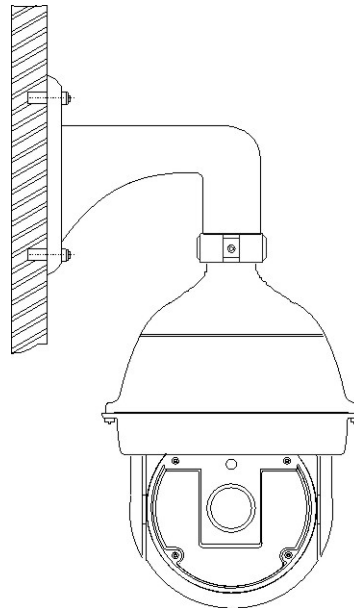
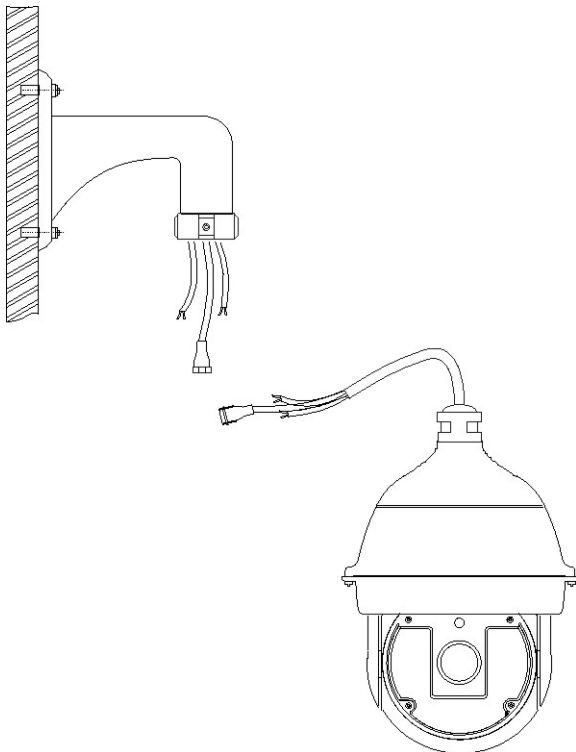
(4) Connect the video cable, power cords and 485 control lines.



SW1协议码

SW2地址码

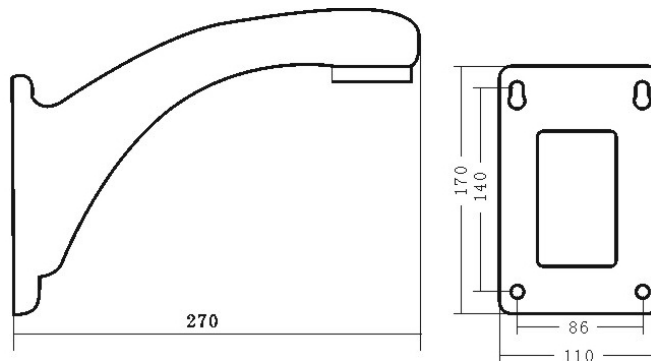
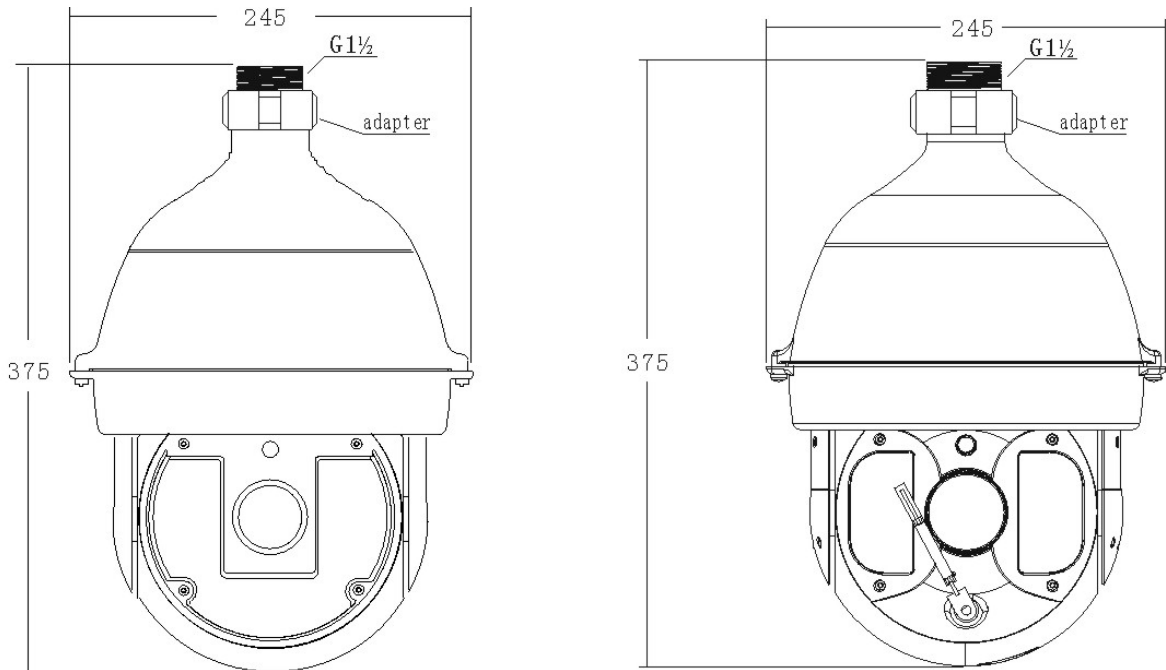
(5) Set the dome into the bracket. First tighten the SHCS at the arc section of the connector, and then tighten the other 3 SHCS. After that, the dome installation is complete.



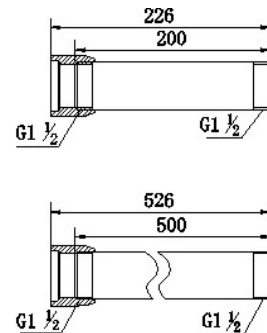
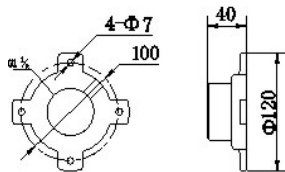
**Note:** The above work must be completed by a qualified professional and technical personnel in accordance with local regulations. Power wiring must not take the wrong!

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## 10. Install hole and size of various often used bracket



Wall-mount Bracket Dimension



Drop ceiling Fixed Underpan Dimension

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## 11. Menu operation

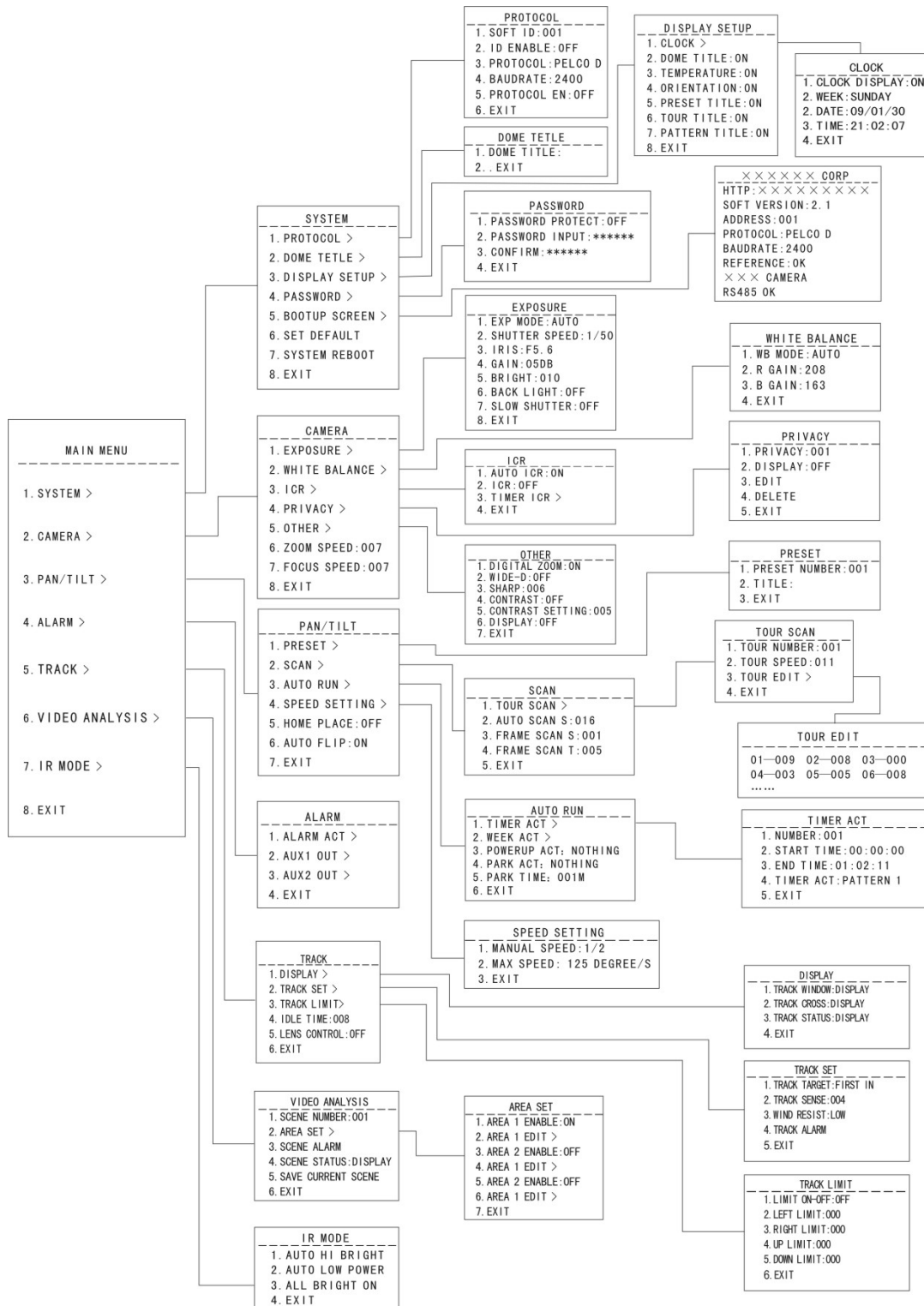
Call dome menu	Call 95th preset
Move up menu option	Pan up order
Move down menu option	Pan down order
Select menu option	'Iris+' (open) order
Enter submenu	'Iris+' (open) order
Return previous menu	'Iris-' (close) order
Exit menu	'Iris-' (close) order
Change menu	Pan up down order
Conserve change and return	'Iris+' (open) order
Cancel change and return	'Iris-' (close) order

**There are different operation when call menu or preset for different keyboard, according to operation of currently using keyboard.**

The dome support shortcut order function of keyboard etc controlling equipment, can save preset, call preset, setup scan border, startup scan, startup cruising etc. by easy operation. Detailed operation refer to using specification of current controlling equipment.

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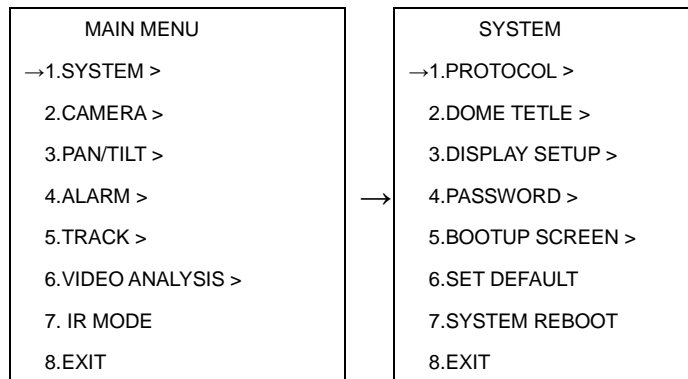
## 12.Menu index





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## 13.System setup



### A dome information setup

Setup soft ID,caption of the dome.

### B display setup

Setup display clock,dome caption,temperature of inside dome, camera orientation,preset caption,cruising scan caption,pattern scan caption,alarm direction.

Examine dome address, communication speed,control protocol,soft version number.

### C setup password

Factory defaults 'OFF' password protect function,can setup password to turn on this function when it is necessary.

### D power up screen

Examine dome address, communication speed,control protocol,soft version number.

### E restore factory defaults

Restore the dome setup data to factory defaults.

### F system reboot

All operation are stopped when operate system reboot,the dome powered up again,operating all setting before reboot are effectively anew power up.

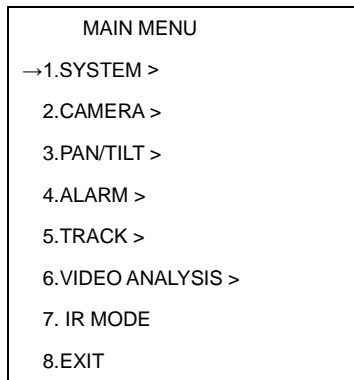
### A . dome information setup

adjust setting dome soft address and caption.

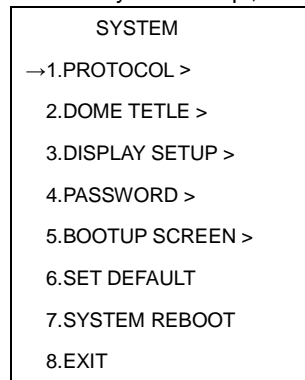
#### Adjust dome address

1.call 95th preset to open main menu

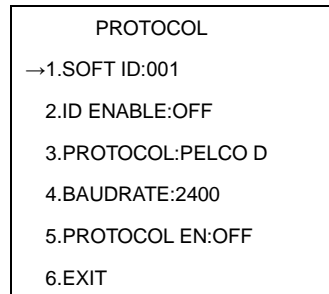
# IR PTZ DOME CAMERA



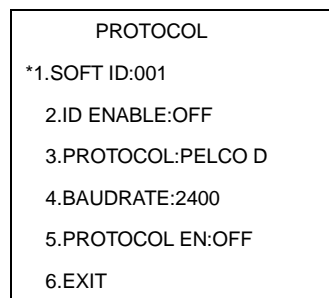
2. Remove joystick ▲ or ▼ to select 'system setup', Iris 'OPEN' order enter. Screen display system setup menu.






3.Remove joystick,select 'SITE INFO', Iris'OPEN'order enter.Screen display location information menu.



Remove joystick to select 'SOFT ID'.



# IR PTZ DOME CAMERA

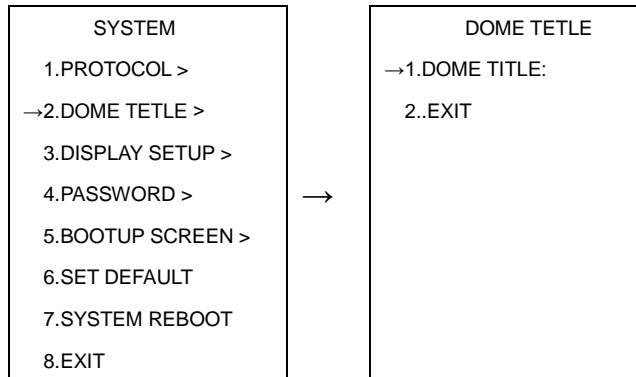
- ① Iris'OPEN' order enter into 'dome soft ID',  becomes to '\*'.
- ② Remove joystick  or , the number of dome soft ID will be adjusted following the movement till
- ③ to the number which you want.
- ④ Iris'OPEN' order confirm the number to complete input. Iris'CLOSE' order exit this setup if want to revert to primary ID.
- ⑤ Remove joystick to select 'SOFT ID', Iris'OPEN' order enters into.

**Note:**the dome uncontrolled after amending dome ID,users have to amend the dome ID of keyboard's menu.The dome can be controlled unless changing dome ID and keyboard's are the same.Refer to use specification of keyboard when amend the dome ID of the keyboard.

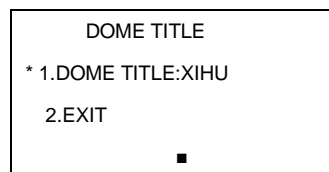
## edit dome caption


'WIDE' order can select input ways: number input, English capitalization and lowercase input. Refer to following setup.



1. Remove joystick in menu of 'SYSTEM' to select 'SITE INFO', then Iris'OPEN' order enters into.



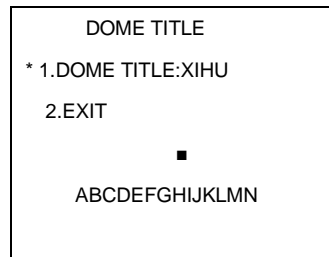
2. Remove joystick to select 'TITLE', Iris'OPEN' order enters into. '■' under caption character denotes character's position currently edited. Users can delete the character input currently position by 'WIDE' order.



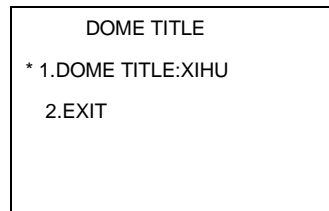
Remove joystick , entering edition, then switch the input ways by 'WIDE' order.

Remove the joystick  or , selecting English capitalization, lowercase or number needed, then confirm by Iris 'OPEN', 'CLOSE' order denotes to give up.

# IR PTZ DOME CAMERA



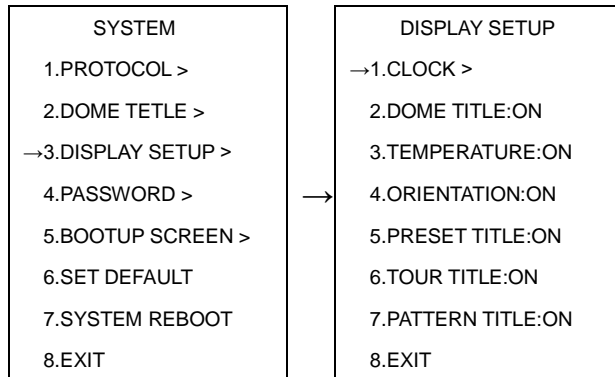
Remove the joystick ◀or▶,select required sign,now the character is flickering, remove the joystick ◀or▶,select required character,confirming by remove the joystick to ▲,otherwise ▼ denotes to give up. Remove the joystick ◀or▶ again,then enter into modification of other position.Selecting 'return' and removing the joystick to ▶,finish setup.



## B DISPLAY SETUP

**DOMETITLE.TEMPERATURE.ORIENTATION.PRESET TITLE.TOUR TITLE.PATTERN TITLE**

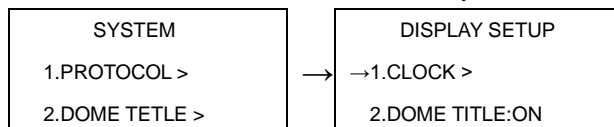
1. Select 'DISPLAY SETUP', Iris'OPEN' order enters into.Screen display information setting menu.



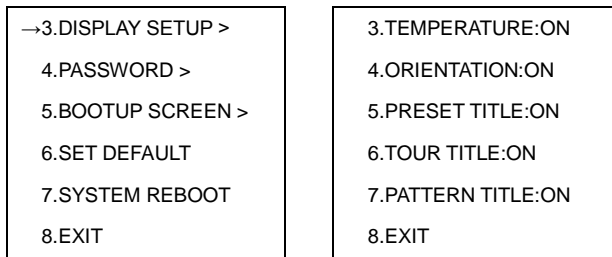
2. Remove the joystick ▲or▼ to select 'CLOCK', then use Iris+'OPEN' order to enter into.This time ▶ before the 'CLOCK' becomes to '\*\*'

## Amend system date and time

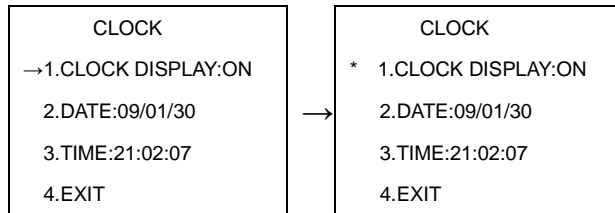
1.Select 'DISPLAY SETUP',then used Iris 'OPEN' order to enter.The screen display 'DISPLAY SETUP'menu.Select 'CLOCK',then enter by 'OPEN' order.



# IR PTZ DOME CAMERA



2.Remove the joystick ▲or▼ to select 'DATE' or 'TIME', then use Iris+'OPEN' order to enter.This time ► before the 'DATE' or 'TIME' becomes to '\*\*'

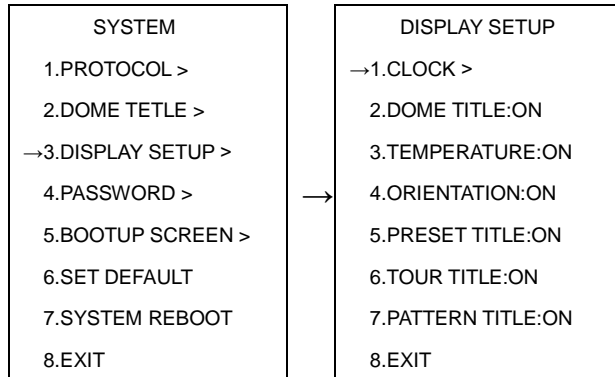


4. Remove the joystick ▲or▼ to change display data as 'ON' or 'OFF'.

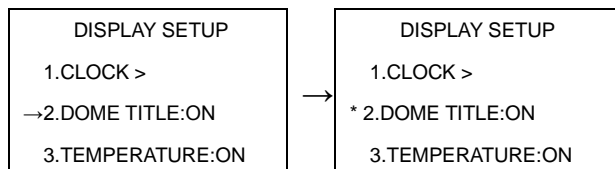
5. Iris+'OPEN' order save and exit, or Iris-'CLOSE' order not save and exit after finishing.

Display 'DOME TITLE'、'TEMPERATURE'ORIENTATION'、'PRESET TITLE'、'TOUR TITLE'、'PATTERN TITLE'

1. Select 'DISPLAY SETUP', then enter by 'OPEN' order. Screen display 'DISPLAY SETUP' menu.



2.Remove the joystick ▲or▼ to select 'DOME TITLE'、'TEMPERATURE'ORIENTATION'、'PRESET TITLE'、'TOUR TITLE'、'PATTERN TITLE', then use Iris+'OPEN' order to enter into relevent menu, ► before menu term becomes to '\*\*'



# IR PTZ DOME CAMERA

4.ORIENTATION:ON  
5.PRESET TITLE:ON  
6.TOUR TITLE:ON  
7.PATTERN TITLE:ON  
8.EXIT

4.ORIENTATION:ON  
5.PRESET TITLE:ON  
6.TOUR TITLE:ON  
7.PATTERN TITLE:ON  
8.EXIT

4. Remove the joystick ▲ or ▼ to change display data as 'ON' or 'OFF'.  
5. Iris+'OPEN' order save and exit, or Iris-'CLOSE' order not save and exit after finishing.

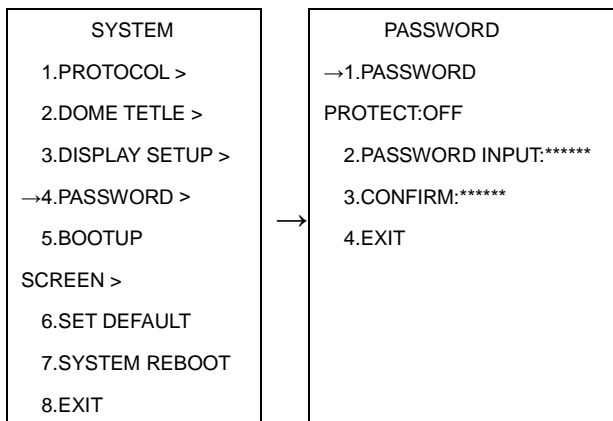
## C Amend dome password

**Setup open or close password protection function, can set new password.**

### Setup and repeat password protection function

Open 'PASSWORD' firstly when setup the password protection function. Necessary to reinstall the password when when use password protection firstly.

1. Remove the joystick ▲ or ▼ to select 'password', then Iris+'OPEN' order enters. Screen display password setting menu.



2. Remove the joystick ▲ or ▼ to 'PASSWORD', Iris+'OPEN' order to enter, ► becomes to '\*'

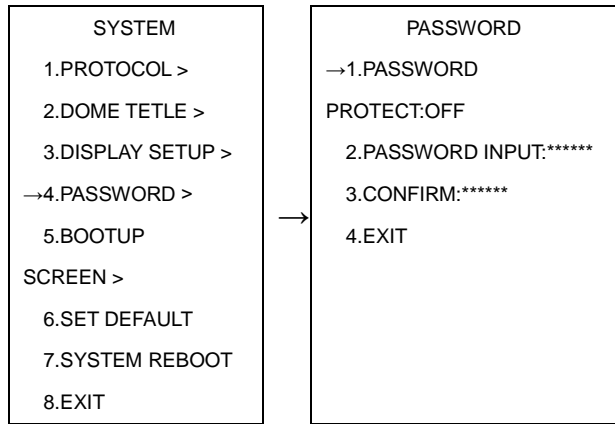
PASSWORD  
\* 1.PASSWORD  
PROTECT:OFF  
2.PASSWORD INPUT:\*\*\*\*  
3.CONFIRM:\*\*\*\*  
4.EXIT

3. Remove the joystick ▲ or ▼ to change display data as 'ON' or 'OFF'.  
Iris+'OPEN' order save and exit, or Iris-'CLOSE' order not save and exit after finishing.

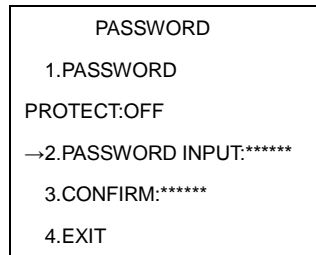
# IR PTZ DOME CAMERA

## Amend password

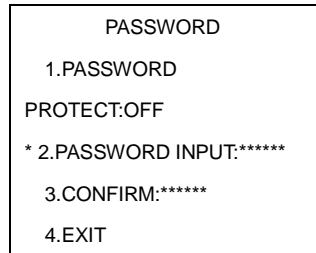
1. Remove the joystick ▲ or ▼ to 'PASSWORD', Iris+'OPEN' order to enter. Screen display password setting menu



2. Remove the joystick ▲ or ▼ to 'PASSWORD INPUT'



3. Iris+'OPEN' order to enter, ► becomes to '\*'



4. Remove the joystick ▲ or ▼ to change the number, then remove ◀ or ▶ that the cursor move to next position.

5. Iris+'OPEN' order save and exit after inputting 6 password, and the cursor auto to 'CONFIRM'.

6. Remove the joystick ▲ or ▼ to change the number, then remove ◀ or ▶ that the cursor move to next position.

7. Iris+'OPEN' order save and exit after inputting 6 password.

8. The cursor auto jump to 'PASSWORD INPUT' if the number input in 'CONFIRM' and 'PASSWORD INPUT' are the same, and changed to '►', finishing password setting. The cursor auto jump to '\*\*\*\*\*' after 'PASSWORD INPUT', input password again and confirm until the number are the same in 'CONFIRM' and 'PASSWORD INPUT'.

## D Power up screen

# IR PTZ DOME CAMERA

**Power up screen display the dome bootup content.**There are protocol display,baud rate display,camera information display and self inspect information display.

Select 'BOOTUP SCREEN', Iris+'OPEN' order enter.Screen appers system bootup information.

```
xxxxxx CORP
HTTP:xxxxxxx
SOFT VERSION:2.1
ADDRESS:001
PROTOCOL:PELCO D
BAUDRATE:2400
REFERENCE:OK
xxx CAMERA
RS485 OK
```

Iris -'CLOSE' order return to superior submenu.

## E Resume factory setup

Select 'SET DEFAULT' in setting menu of system information, Iris+'OPEN' order enter and setup all dome data to factory default setting.The system auto reboot after operation.

```
SYSTEM
1.PROTOCOL >
2.DOME TETLE >
3.DISPLAY SETUP >
4.PASSWORD >
5.BOOTUP SCREEN >
→6.SET DEFAULT
7.SYSTEM REBOOT
8.EXIT
```

## F system reboot

Select 'SYSTEM REBOOT' in setting menu of system information, Iris+'OPEN' order enter, the system auto reboot.

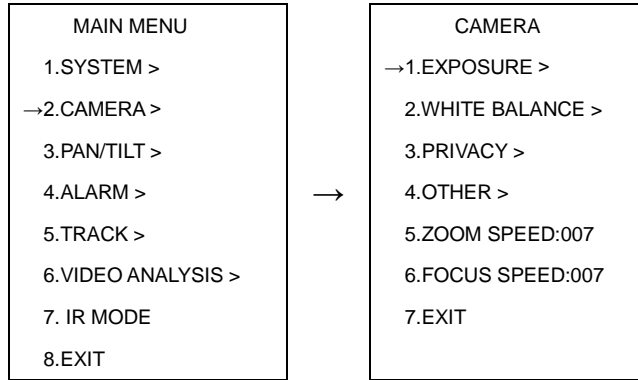
```
SYSTEM
1.PROTOCOL >
2.DOME TETLE >
3.DISPLAY SETUP >
4.PASSWORD >
5.BOOTUP SCREEN >
6.SET DEFAULT
→7.SYSTEM REBOOT
```



# IR PTZ DOME CAMERA

8.EXIT

## 14. Camera setup



### A Exposure setup

Users can setup different exposure modes,can adjust PWL by exposure data following different modes.Setup shutter speed,iris speed,gain adjustment,bright adjustment,backlight compensation,slow shutter.

### B Whithe blance setup

Dome auto adjust present image color depend on the change of enviornment and ray of taken object,appering true color.

### C Privacy masking

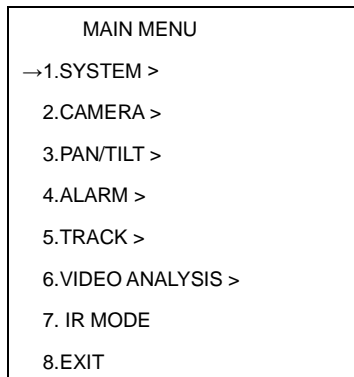
Users can setup privacy masking in any position of monitor zone,maximum 8pcs zones.

### D Other setup

Setup Digital focus, Color/B&W shift mode, Color/B&W shift,On or Off camera information display.

### A Exposure setup

1. Call 95 preset,call main menu.



# IR PTZ DOME CAMERA

2. 'CAMERA' Remove joystick ▲ or ▼ to select 'CAMERA'.

MAIN MENU	
1.SYSTEM >	
→2.CAMERA >	
3.PAN/TILT >	
4.ALARM >	
5.TRACK >	
6.VIDEO ANALYSIS >	
7. IR MODE	
8.EXIT	

3. 'OPEN' order enter into 'CAMERA' menu.

CAMERA	
→1.EXPOSURE >	
2.WHITE BALANCE >	
3.PRIVACY >	
4.OTHER >	
5.ZOOM SPEED:007	
6.FOCUS SPEED:007	
7.EXIT	

- 4.Remove joystick ▲ or ▼ to select 'EXPOSURE', 'OPEN' order enter into 'EXPOSURE' menu.

EXPOSURE	
→1.EXP MODE:AUTO	
2.SHUTTER SPEED:1/50	
3.IRIS:F5.6	
4.GAIN:05DB	
5.BRIGHT:010	
6.BACK LIGHT:OFF	
7.SLOW SHUTTER:OFF	
8.EXIT	

- 5.Remove joystick to select 'EXPOSURE', 'OPEN' order enter, then move the joystick to ▲ or ▼ to select data.

5 kinds mode:

1	Auto
2	Manual
3	ShutterP
4	IrisP

# IR PTZ DOME CAMERA

5	Bright
---	--------

'SHUTTER SPEED'、'IRIS'、'GAIN'、'BRIGHT' can be set or not depend on the setting data of 'EXPOSURE' mode.

Remove the joystick after finishing setting, exit setting.

EXPOSURE
* 1.EXP MODE:AUTO
2.SHUTTER SPEED:1/50
3.IRIS:F5.6
4.GAIN:05DB
5.BRIGHT:010
6.BACK LIGHT:OFF
7.SLOW SHUTTER:OFF
8.EXIT

The camera auto adjust all parameter when it is in automatic mode. And allowed to open back light compensation. This function can not be used in other mode. The backlighting object has shadow when it is under a strong light background. The back light compensation function let the dome automatically adjust iris to fit light changes, auto correct the light of image subject, let the image appear clearly.

**Remark: the day and night auto shift and frame accumulation are invalid when the Exposure set as 'AUTO:OFF'.**

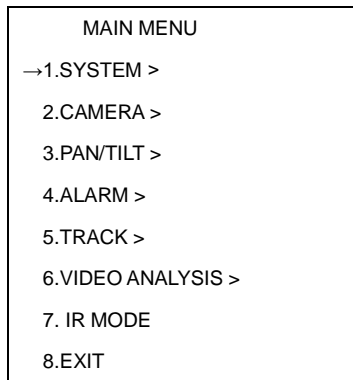
Camera sub-area can carry out auto back light compensation. Under a strong light background, camera will auto compensation light for the darker object and adjust daylight to the bright background. In order to avoid making the image lack fidelity by the back line is too bright, and the object is unable to recognize because of darkness, thus gain a clear image.

## B White balance setup

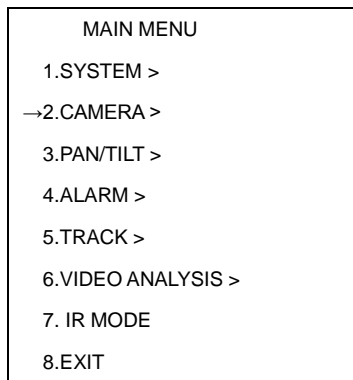
Dome auto adjust present image color depend on the change of environment and ray of taken object, appearing true color.

1. Call 95 preset, call main menu

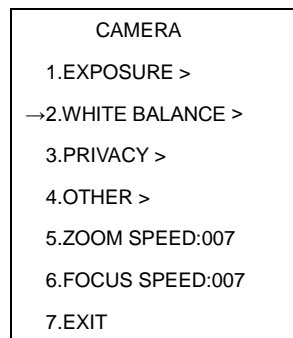
# IR PTZ DOME CAMERA





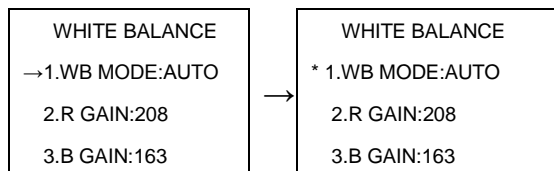
2. Remove joystick  or  to select 'CAMERA'.



3. 'OPEN' order enter into 'CAMERA'menu.



- 4.Remove joystick  or  to select 'WHITE BALANCE', 'OPEN' order enter into 'WHITE BALANCE'menu.



# IR PTZ DOME CAMERA

4.EXIT

4.EXIT

5.Remove joystick to select 'WB MODE', white balance mode, 'OPEN' order enter,then move the joystick to ▲or▼ to select data.

Iris 'OPEN' order select menu option,changed curor to '\*'.Adjust parameter through Pan up down order,can select 6 mode::

Auto	OPW
Manual	OutDoor
ATW	InDoor

Users can adjust the 'R GAIN'and 'B GAIN'under manual mode only,the higher the number the higher the gain.

## c Privacy masking

1. Call 95 preset,call main menu

MAIN MENU
→1.SYSTEM >
2.CAMERA >
3.PAN/TILT >
4.ALARM >
5.TRACK >
6.VIDEO ANALYSIS >
7. IR MODE
8.EXIT

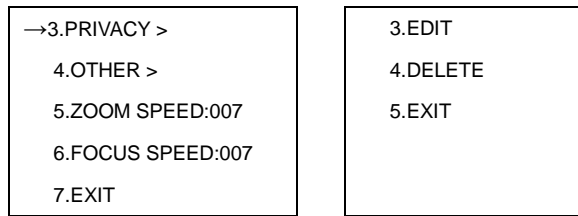
2. 'CAMERA' Remove joystick ▲or▼ to select 'CAMERA'.

MAIN MENU
1.SYSTEM >
→2.CAMERA >
3.PAN/TILT >
4.ALARM >
5.TRACK >
6.VIDEO ANALYSIS >
7. IR MODE
8.EXIT

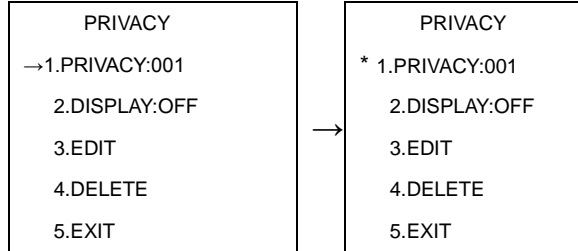
3. 'OPEN' order enter into 'CAMERA' menu ,remove joystick ▲or▼ to select 'PRIVACY',.

CAMERA 1.EXPOSURE > 2.WHITE BALANCE >	→	PRIVACY →1.PRIVACY:001 2.DISPLAY:OFF
---	---	--

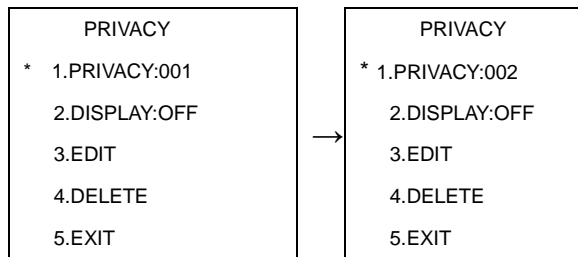
# IR PTZ DOME CAMERA



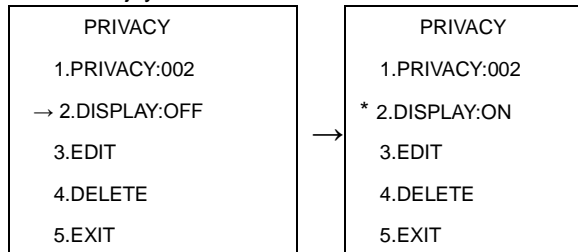
4. 'OPEN' order enter into 'PRIVACY'privacy masking menu



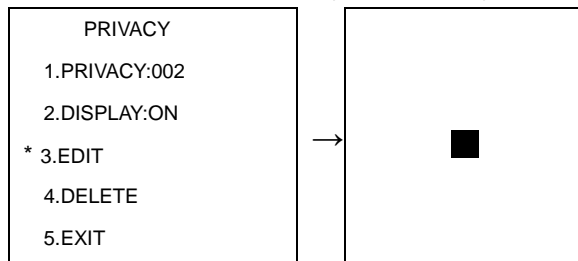
5.Remove joystick ▲or▼ to select 'PRIVACY', 'OPEN' order enter into privacy masking number.



6.Remove joystick ▲or▼ to select the data of 'PRIVACY'number,1-8,then 'OPEN' order confirm.



7. Remove joystick ▲or▼ to select 'DISPLAY', 'EDIT', 'DELETE',select ON or OFF when enter into 'DISPLAY',that select to display or not display current privacy masking number corresponding masking zone.



# IR PTZ DOME CAMERA

Remove joystick ▲ or ▼ to select 'EDIT' when the data of 'DISPLAY' is ON, a black little square appears in center of screen when use 'OPEN' order to enter into 'EDIT'. Users can use 'NEAR'. 'FAR'. 'WIDE'. 'TELE' order to adjust black square size, use 'OPEN' order to confirm when gain right size.

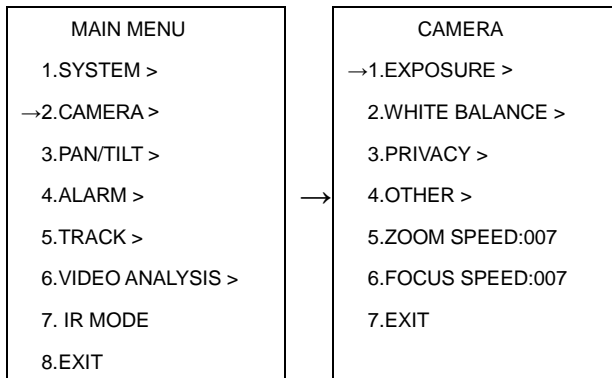
PRIVACY
1.PRIVACY:002
2.DISPLAY:ON
3.EDIT
* 4.DELETE
5.EXIT

Remove joystick ▲ or ▼ to select 'DELETE', then can delete current privacy masking zone when use 'OPEN' order.

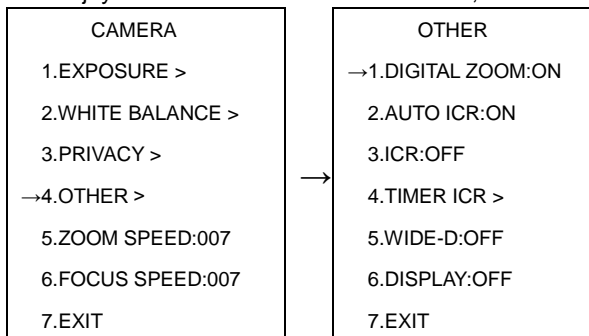
## D Other setup

Users can setup digital zoom, color/B&W shift mode, color/B&W shift, ON or OFF camera information display.

1. Call 95 preset, call main menu



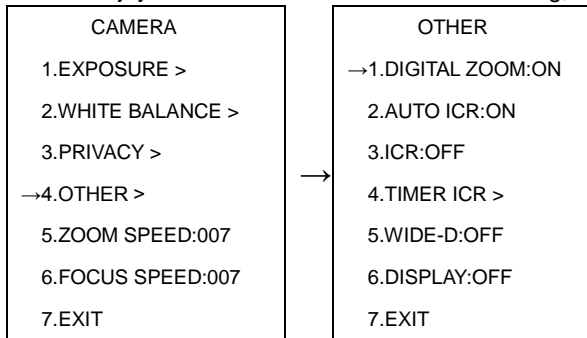
2. Remove joystick ▲ or ▼ to select 'CAMERA', 'OPEN' order enter into 'CAMERA' menu



# IR PTZ DOME CAMERA

## Digital zoom

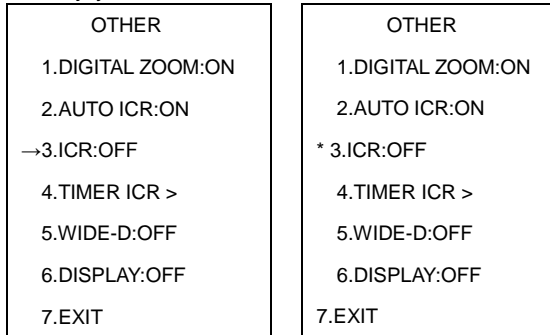
1. Remove joystick ▲ or ▼ to select 'OTHER' setting, 'OPEN' order enter into 'DIGITAL ZOOM'.



- 2.Remove joystick ▲ or ▼ to select 'ON'或'OFF', then use 'OPEN' order to confirm. 'DIGITAL ZOOM' is effective when select ON,and noneffective when select OFF.

## Color/B&W Auto Shift

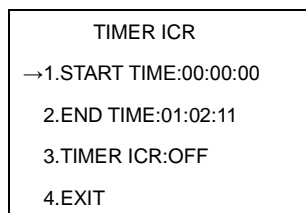
- 1.Remove joystick ▲ or ▼ to select 'AUTO ICR', then use 'OPEN' order to enter.



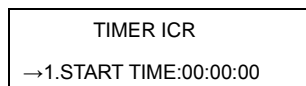
- 2.Remove joystick ▲ or ▼ to select 'ON'或'OFF', then use 'OPEN' order to confirm.It is auto mode of Color/B&W Shift mode when select 'ON',the camera auto shift color or white according to light and shade of environment ray.It is manual mode when select OFF,and Color/B&W Shift or not depend on setting of 'ICR'.

## Timer Color/B&W Shift

- 1.Remove joystick ▲ or ▼ to select 'ICR'when enter into 'OTHER'of 'CAMERA', then use 'OPEN' order to enter.



2. Remove joystick ▲ or ▼ to select 'START TIME' or 'END TIME', 'START TIME'sets to start black&white time, 'END TIME'as shift back color mode time.





# IR PTZ DOME CAMERA

2.END TIME:01:02:11  
3.TIMER ICR:OFF  
4.EXIT

3. Iris+'OPEN' order enter corresponding menu. Remove joystick ▲ or ▼ to change number, then move to ← or → side so that the cursor move to next position. Iris+'OPEN' order save and exit, or Iris-'CLOSE' order not save and exit after finishing

TIMER ICR  
\* 1.START TIME:20:00:00  
2.END TIME:01:02:11  
3.TIMER ICR:OFF  
4.EXIT

TIMER ICR  
1.START TIME:20:00:00  
\* 2.END TIME:06:05:11  
3.TIMER ICR:OFF  
4.EXIT

4. Remove joystick ▲ or ▼ to select 'TIMER ICR'.

TIMER ICR  
1.START TIME:20:00:00  
2.END TIME:06:05:11  
→3.TIMER ICR:OFF  
4.EXIT

5. Iris+'OPEN' order enter. Remove joystick ▲ or ▼ to change parameter, select 'ON' is timer **Color/B&W** **Shift**, select 'OFF' as not start **Color/B&W Shift**. Iris+'OPEN' order save and exit, or Iris-'CLOSE' order not save and exit after finishing

TIMER ICR  
1.START TIME:20:00:00  
2.END TIME:06:05:11  
\* 3.TIMER ICR:ON  
4.EXIT

## **Camera information display**

1. Enter into 'OTHER' menu of 'CAMERA', then remove joystick ▲ or ▼ to select 'DISPLAY', then use 'OPEN' order

# IR PTZ DOME CAMERA

to confirm.

OTHER	OTHER
1.DIGITAL ZOOM:ON	1.DIGITAL ZOOM:ON
2.AUTO ICR:ON	2.AUTO ICR:ON
3.ICR:OFF	3.ICR:OFF
4.TIMER ICR >	4.TIMER ICR >
5.WIDE-D:OFF	5.WIDE-D:OFF
→6.DISPLAY:OFF	* 6.DISPLAY:OFF
7.EXIT	7.EXIT

2. Remove joystick ▲ or ▼ to select 'ON'或'OFF', then use 'OPEN' order to save and exit,or use 'CLOSE' order to cancel save and exit.The screen display the zoom times etc.information of the camera when it is ON.

## 15. Pan-tilt data setup

MAIN MENU		PAN/TILT
1.SYSTEM >		→1.PRESET >
2.CAMERA >		2.SCAN >
→3.PAN/TILT >		3.AUTO RUN >
4.ALARM >		4.SPEED
5.TRACK >	→	SETTING >
6.VIDEO ANALYSIS >		5.HOME
7. IR MODE		PLACE:OFF
8.EXIT		6.AUTO FLIP:ON
		7.EXIT

### A preset title

Edit preset title and support Chinese spell input.English input and number input.

### B cruising scan

Setup scan cyclely between multi-preset,can setup 6 tours total,each one tour support 1-18pcs preset,can setup scan speed and staying time on each point.

### C other scan

Can setup auto scan speed,frame scan speed,frame scan time,track sensitivetatiy(only for high speed dome with track function)

### D manual speed proportion

There are 1.1/2.1/3.1/4 grades of limited speed proportion.Users can setup according to own need.

### E home place

Hompe place is used to let dome auto go to important place which need to be monitored without operation, setup any point between 1-32 preset as home position,also can select close home function.

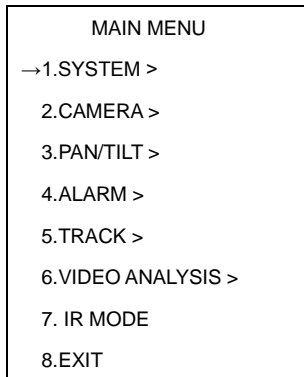
# IR PTZ DOME CAMERA

## F auto flip

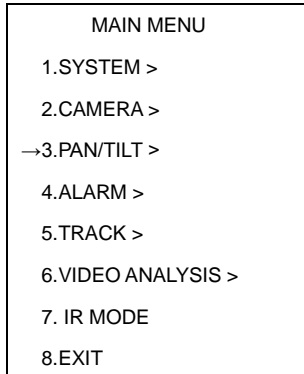
The dome can be set 180 degree auto flip function for continuity of upright monitoring.



## A preset title

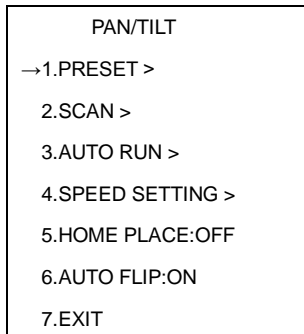
1. Call 95 preset, call main menu



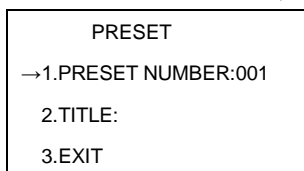
2. Remove joystick  or  to select 'PAN/TILT'





3. Use 'OPEN' order enter into 'PAN/TILT' menu, then remove joystick  or  to select 'PRESET'.



4. Use 'OPEN' order enter into 'PRESET', select 'PRESET NUMBER'



5. Use 'OPEN' order enter into 'PRESET NUMBER', select 'PRESET NUMBER', remove joystick  or  to

# IR PTZ DOME CAMERA

select number,then use 'OPEN' confirm, save and exit.

PRESET	PRESET
* 1.PRESET	* 1.PRESET NUMBER:002
NUMBER:001	2.TITLE:
2.TITLE:	3.EXIT
3.EXIT	

6. remove joystick ▲ or ▼ to select 'TITLE'

PRESET
1.PRESET NUMBER:001
→2.TITLE:
3.EXIT

7. Use 'OPEN' order enter into 'TITLE',edit preset and dome title way are the same,refer 20th 'edit dome title'

PRESET
1.PRESET NUMBER:002
* 2.TITLE:ab2
■
A a 2

## B Tour scan

1. Select 'TOUR SCAN',then use 'OPEN' order to enter.

PAN/TILT	SCAN
1.PRESET >	→1.TOUR SCAN >
→2.SCAN >	2.AUTO SCAN S:016
3.AUTO RUN >	3.FRAME SCAN S:001
4.SPEED SETTING >	4.FRAME SCAN T:005
5.HOME PLACE:OFF	5.EXIT
6.AUTO FLIP:ON	
7.EXIT	

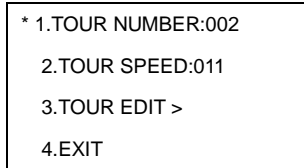
2. Remove joystick ▲ or ▼ to select 'TOUR NUMBER',use 'OPEN' order to enter.

TOUR SCAN
* 1.TOUR NUMBER:001
2.TOUR SPEED:011
3.TOUR EDIT >
4.EXIT

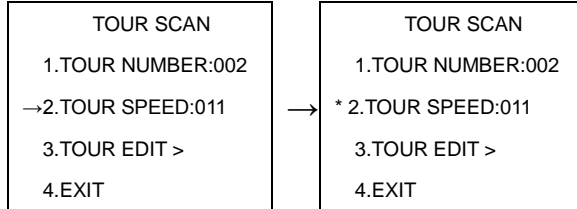
3.Remove joystick ▲ or ▼ to select 'TOUR NUMBER'1-6,such as select 2,use 'OPEN' order to confirm and exit.

TOUR SCAN

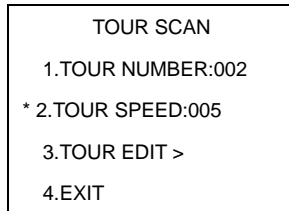
# IR PTZ DOME CAMERA



4.Remove joystick ▲ or ▼ to select 'TOUR SPEED',use 'OPEN' order to enter.



5.Remove joystick ▲ or ▼ to select the data of 'TOUR SPEED'0-11, '0'is the lowest speed, '011'is highest speed.Such as select '005'speed,use 'OPEN' order to confirm and exit.



6.Remove joystick ▲ or ▼ to select 'TOUR EDIT',use 'OPEN' order to enter.There are 6 rows 3 tiers,18pcs point.Such as following table,the first row and tier '01'is preset,and '009'is staying time 9 seconds on this point.Finish tour when the preset number is '00',will tour from the first point anew.Overlap the point staying time '000' to next one.

TOUR SCAN	PRESET TIME	TOUR 01
1.TOUR NUMBER:002	01-009	02-008 03-000
2.TOUR SPEED:005	00-000	00-000 00-000
→3.TOUR EDIT >	00-000	00-000 00-000
4.EXIT	00-000	00-000 00-000
	00-000	00-000 00-000
	00-000	00-000 00-000
	00-000	00-000 00-000

## C Other scan

Can setup auto scan speed,frame scan speed,frame scan time,track sensitivetatiy(only for high speed dome with track function).Select 'OTHER SCAN',then use 'OPEN' order to enter.



# IR PTZ DOME CAMERA

5.HOME PLACE:OFF  
6.AUTO FLIP:ON  
7.EXIT

5.EXIT

## D Auto run

### Timer act

1. Select 'AUTO RUN',then enter by 'OPEN'order to select 'TIMER ACT',then enter by 'OPEN'order.

PAN/TILT	AUTO RUN
1.PRESET >	→1.TIMER ACT >
2.SCAN >	2.POWERUP ACT :
→3.AUTO RUN >	NOTHING
4.SPEED SETTING >	3.PARK ACT: NOTHING
5.HOME PLACE:OFF	4.PARK TIME: 001M
6.AUTO FLIP:ON	5.EXIT
7.EXIT	

- 2.Remove joystick ▲or ▼ to select 'NUMBER',use 'OPEN'order to enter. Use ▲or ▼ to shift timer action number,then enter by 'OPEN'order

TIMER ACT
→1.NUMBER:001
2.START TIME:00:00:00
3.END TIME:01:02:11
4.TIMER ACT:NOTHING
5.EXIT

3. Remove joystick ▲or ▼ to select 'START TIME',enter by 'OPEN' order.then move to ←or→side so that the cursor move to next position.Iris+'OPEN'order save and exit,or Iris-'CLOSE'order not save and exit after finishing

TIMER ACT
1.NUMBER:001
→2.START TIME:00:00:00
3.END TIME:01:02:11
4.TIMER ACT:NOTHING
5.EXIT

TIMER ACT
1.NUMBER:001
* 2.START TIME:08:00:00
3.END TIME:01:02:11
4.TIMER ACT:PNOTHING
5.EXIT

- 4.Remove joystick ▲or ▼ to select 'END TIME',enter by 'OPEN' order.then move to ←or→side so that the cursor move to next position.Iris+'OPEN'order save and exit,or Iris-'CLOSE'order not save and exit after finishing

TIMER ACT
1.NUMBER:001
2.START TIME:08:00:00

TIMER ACT
1.NUMBER:001
2.START TIME:08:00:00

# IR PTZ DOME CAMERA

→3.END TIME:01:02:11  
4.TIMER ACT:NOTHING  
5.EXIT

\* 3.END TIME:09:15:00  
4.TIMER ACT:PNOTHING  
5.EXIT

5. Remove joystick ▲ or ▼ to select 'TIMER ACT', enter by 'OPEN' order.

TIMER ACT  
1.NUMBER:001  
2.START TIME:08:00:00  
3.END TIME:09:15:00  
→4.TIMER ACT:NOTHING  
5.EXIT

6.Remove joystick ▲ or ▼ to change act mode:home place,pattern scan,tour scan,auto scan,frame scan,preset,auto track,video sence 1-8 intelligent analysis, Iris+'OPEN' order save and exit after setting.

TIMER ACT  
1.NUMBER:001  
2.START TIME:08:00:00  
3.END TIME:09:15:00  
\* 4.TIMER ACT: PATTERN 1  
5.EXIT

## E Limited speed set

### Manual speed proportion

There are 1.1/2.1/3.1/4 grades of limited speed proportion.Users can setup according to own need.

Remove joystick ▲ or ▼ to select 'MANUAL SPEED',use 'OPEN' order to enter

PAN/TILT	SPEED SETTING
1.PRESET >	→1.MANUAL SPEED:1/2
2.SCAN >	2.MAX SPEED: 250
3.AUTO RUN >	DEGREE/S
→4.SPEED	3.EXIT
SETTING >	
5.HOME	
PLACE:OFF	
6.AUTO FLIP:ON	
7.EXIT	

1. Remove joystick ▲ or ▼ to select manual speed proportion(1、1/2、1/3、1/4), the higher the figure, the faster the speed, then use 'OPEN' order to save and exit after finishing setting.

SPEED SETTING  
\* 1.MANUAL SPEED:1  
2.MAX SPEED: 250 DEGREE/S

# IR PTZ DOME CAMERA

3.EXIT

## The maximum run speed

Can set the maximum run speed of calling preset,common is 250°/s,the maximum can be set 400°/s.The higher maximum run speed the higher manual speed.(set way is the same as set manual limited speed).

### SPEED SETTING

1.MANUAL SPEED:1

→2.MAX SPEED: 250 DEGREE/S

3.EXIT

### SPEED SETTING

1.MANUAL SPEED:1

\* 2.MAX SPEED: 400 DEGREE/S

3.EXIT

## **F Home place**

Home place is used to let dome auto go to important place which need to be monitored without operation, setup any point between 1-32 preset as home position,also can select close home function.

1. Remove joystick ▲ or ▼ to select 'HOME PLACE',then use 'OPEN'to enter.

### PAN/TILT

1.PRESET >

2.SCAN >

3.AUTO RUN >

4.SPEED SETTING >

→5.HOME PLACE:OFF

6.AUTO FLIP:ON

7.EXIT

### PAN/TILT

1.PRESET >

2.SCAN >

3.AUTO RUN >

4.SPEED SETTING >

\* 5.HOME PLACE:OFF

6.AUTO FLIP:ON

7.EXIT

2. Remove joystick ▲ or ▼ to change the data of 'HOME PLACE',can select OFF or any point between 1-32 preset,then use 'OPEN'to save and exit.

### PAN/TILT

1.PRESET >

2.SCAN >

3.AUTO RUN >

4.SPEED SETTING >

\* 5.HOME PLACE:001

6.AUTO FLIP:ON

7.EXIT

## **G Auto flip**



# IR PTZ DOME CAMERA

The dome can be set 180 degree auto flip function for continuity of upright monitoring.

Remove joystick ▲ or ▼ to select 'AUTO FLIP', then use 'OPEN' to enter.

PAN/TILT	PAN/TILT
1.PRESET >	1.PRESET >
2.SCAN >	2.SCAN >
3.AUTO RUN >	3.AUTO RUN >
4.SPEED SETTING >	4.SPEED SETTING >
5.HOME PLACE:OFF	5.HOME PLACE:OFF
→6.AUTO FLIP:ON	* 6.AUTO FLIP:ON
7.EXIT	7.EXIT

1. Remove joystick ▲ or ▼ to change the data of 'AUTO FLIP', can select ON or OFF. Select OFF, the dome can not auto flip, select ON, the dome auto flip 180 degree when it flips to -90 degree. Use 'OPEN' order to save and exit after selecting.

PAN/TILT
1.PRESET >
2.SCAN >
3.AUTO RUN >
4.SPEED SETTING >
5.HOME PLACE:001
* 6.AUTO FLIP:OFF
7.EXIT

## 16. Alarm setup

MAIN MENU	ALARM
1.SYSTEM >	→1.ALARM ACT >
2.CAMERA >	2.AUX1 OUT >
3.PAN/TILT >	3.AUX2 OUT >
→4.ALARM >	4.EXIT
5.TRACK >	
6.VIDEO ANALYSIS >	
7. IR MODE	
8.EXIT	

### Alarm function

The dome perform prior setting action when it receives the outside alarm signal(can select no action, call preset, pattern scan, auto cruising, etc., also can select closed and assistant switch AUX1 or AUX2) until cancel alarm. The dome can set 7 routes alarm input at most and 2 routes alarm output. Input and output are switch quantity.

# IR PTZ DOME CAMERA

Setup data by 'ALARM'setting menu.

## A alarm action management

Setup the action which the dome operate when receive the alarm signal.

## B alarm output1 management

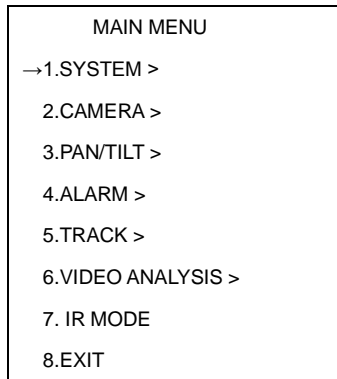
Setup 1-6 alarm are effective that assistant switch AUX1 is ON or OFF.

## C alarm output2 management

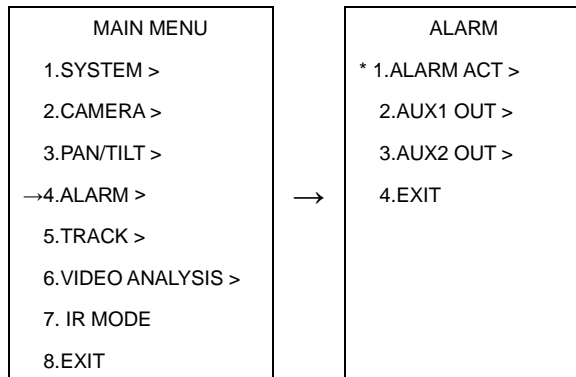
Setup 1-6 alarm are effective that assistant switch AUX12is ON or OFF.

## A alarm action management

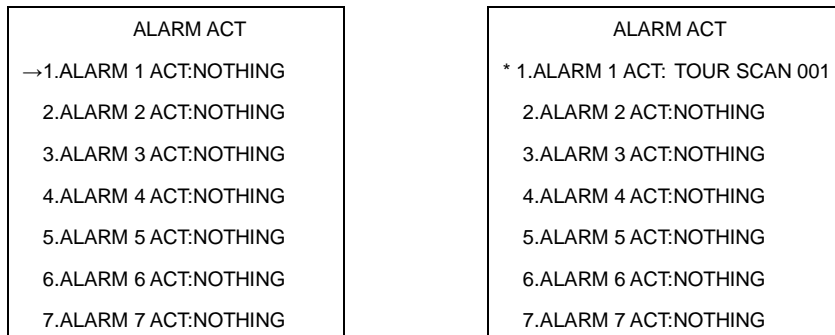
1. Call 95 preset,call main menu



2. Remove the joystick to select 'ALARM',then use 'OPEN'to enter.



3. Remove the joystick to select 'ALARM ACT'management,then use 'OPEN'to enter.



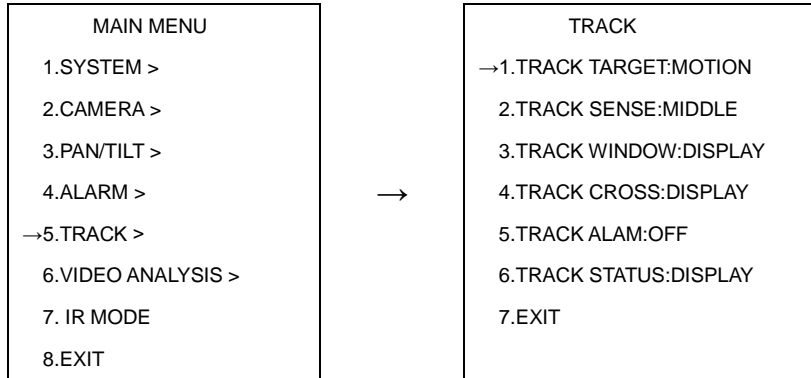
# IR PTZ DOME CAMERA

8.EXIT

8.EXIT

4. Remove the joystick to select 'ALARM ACT', then use 'OPEN' to enter.

## 17. Auto Tracking Set (special for track dome)



Track dome have two modes, including auto track and manual locked track.

Enter auto track mode by call 88<sup>th</sup> preset.

The users select the object in the field of view, move the object to the middle of the field of view, pressing 'OPEN' key, the track dome enters manual locked mode, the dome will trace the motion path of this target by itself after that. It will exit manual track mode when there is any manual operation.

### 1. tracking target

Can set to track the target which one of the most Vigorous movement and the first enters the field of view.

### 2. Track sensitivity

Can set sensitivity of auto track, divided into low, medium, high and very high

### 3. track window

It is convenient for users to check the current target, can display or close the track window.

### 4. cross centre

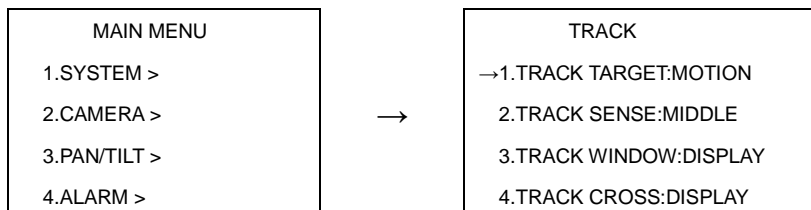
The cross centre is the middle position of screen, can display or close the cross centre.

### 5. Track alarm

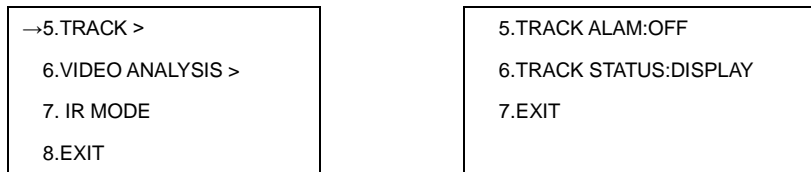
When the object enters the field of the view, users can set alarm linkage by menu after starting the track..

## Tracking target

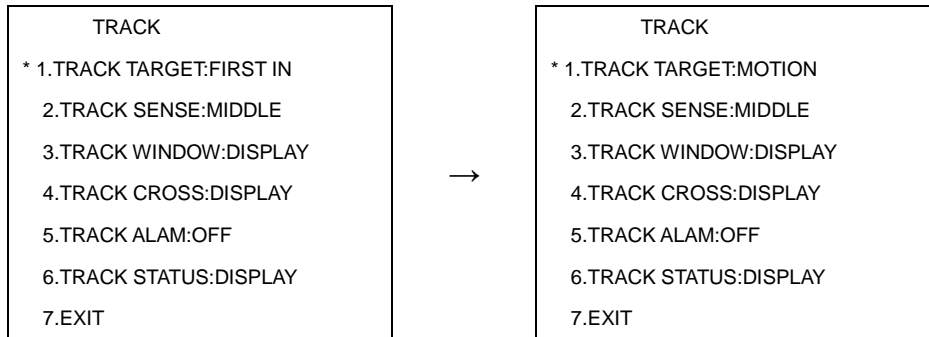
1. Call 95<sup>th</sup> preset to call-out main menu. Remove the joystick up and down, select 'TRACK', enter 'TRACK' menu by 'OPEN' order.



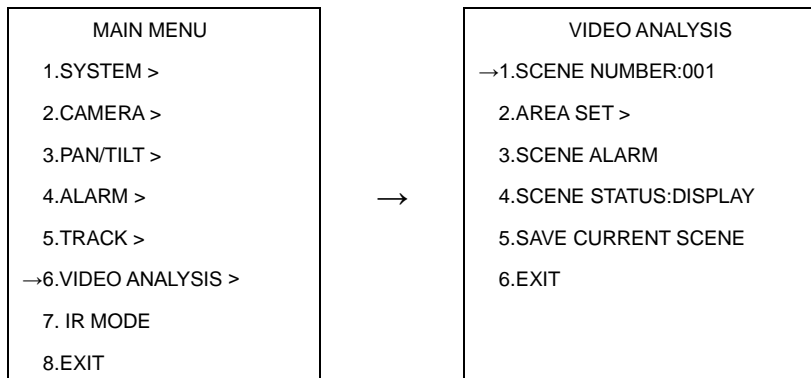
# IR PTZ DOME CAMERA



2. Select 'TRACK TARGET',enter 'TRACK TARGET' by 'OPEN'oder,remove joystick ▲or▼ to select 'FIRST IN'(the first enters the field of view) or 'MOTION'(the most Vigorous target), Use 'OPEN'order to save and exit after selecting.



## 18. Intelligent analysis(special for track dome)



The dome can analyse video sence to judge if the foreign object bursts in or not.Can select alarm output when the foreign object bursts in(The first alarm output,the second alarm output,two alarm at the same time ) or video image display information'have (or not have) foreign object'.Can be set 3 video analysis sence,corresponding 111th ,112th,113th preset,every sence can set 3 erea,dome will analyse if there have foreign object burst in set er

## 19. Infrared Mode

This function mainly set switch control of illumination concerned with optical zoom of camera module lens. There have three modes: AUTO HI-BRIGHT, AUTO LOW POWER, ALL BRIGHT ON.

1. Call No.95 preset for OSD display. Then move joystick, chose "IR MODE" , press "OPEN"→"IR MODE", then move joystick up and down to switch over IR mode, chose one mode and press"OPEN" and

# IR PTZ DOME CAMERA

quit.

The status of switch with distant or near IR lamp are as followings:

MODE English menu	DEZOOMING	ZOOMING
AUTO HI BRIGHT	NEAR LAMP ON, DISTANT LAMP OFF	NEAR LAMP ON, DISTANT LAMP ON
AUTO LOW POWER	NEAR LAMP ON, DISTANT LAMP OFF	NEAR LAMP OFF, DISTANT LAMP ON
ALL BRIGHT ON	NEAR LAMP ON, DISTANT LAMP ON	NEAR LAMP ON, DISTANT LAMP ON

## 20. Switch table

### Attach table

SW1 SETUP

control	SW SETUP							
	1	2	3	4	5	6	7	8
AD Machester	OFF	OFF	OFF	x	x	x	x	x
D 2400B	ON	OFF	OFF	x	x	x	x	x
P 2400B	OFF	ON	OFF	x	x	x	x	x
P 4800B	ON	ON	OFF	x	x	x	x	x
P 9600B	OFF	OFF	ON	x	x	x	x	x
D 4800B	ON	OFF	ON	x	x	x	x	x
D 9600B	OFF	ON	ON	x	x	x	x	x

Table 2

SW2 SETUP - P CONTROL CODE ( BAUD AVALIBALE SELECT )

Dome addres s	SW SETUP				
	1	2	3	4	5
1	OFF	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF	OFF

Dome addres s	SW SETUP				
	1	2	3	4	5
17	OFF	OFF	OFF	OFF	ON
18	ON	OFF	OFF	OFF	ON

## IR PTZ DOME CAMERA

3	OFF	ON	OFF	OFF	OFF
4	ON	ON	OFF	OFF	OFF
5	OFF	OFF	ON	OFF	OFF
6	ON	OFF	ON	OFF	OFF
7	OFF	ON	ON	OFF	OFF
8	ON	ON	ON	OFF	OFF
9	OFF	OFF	OFF	ON	OFF
10	ON	OFF	OFF	ON	OFF
11	OFF	ON	OFF	ON	OFF
12	ON	ON	OFF	ON	OFF
13	OFF	OFF	ON	ON	OFF
14	ON	OFF	ON	ON	OFF
15	OFF	ON	ON	ON	OFF
16	ON	ON	ON	ON	OFF

19	OFF	ON	OFF	OFF	ON
20	ON	ON	OFF	OFF	ON
21	OFF	OFF	ON	OFF	ON
22	ON	OFF	ON	OFF	ON
23	OFF	ON	ON	OFF	ON
24	ON	ON	ON	OFF	ON
25	OFF	OFF	OFF	ON	ON
26	ON	OFF	OFF	ON	ON
27	OFF	ON	OFF	ON	ON
28	ON	ON	OFF	ON	ON
29	OFF	OFF	ON	ON	ON
30	ON	OFF	ON	ON	ON
31	OFF	ON	ON	ON	ON
32	ON	ON	ON	ON	ON

**Table 3**

SW2 SETUP - D CONTROL CODE

# IR PTZ DOME CAMERA

## ADDRESS 1 – 64

Dome address	SW setup							
	1	2	3	4	5	6	7	8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF

Dome address	SW setup							
	1	2	3	4	5	6	7	8
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF

# IR PTZ DOME CAMERA

## ADDRESS 65 – 128

Dome address	SW setup							
	1	2	3	4	5	6	7	8
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
79	ON	ON	ON	ON	OFF	OFF	ON	OFF
80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF

Dome address	SW setup							
	1	2	3	4	5	6	7	8
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON	OFF
108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
109	ON	OFF	ON	ON	OFF	ON	ON	OFF
110	OFF	ON	ON	ON	OFF	ON	ON	OFF
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
115	ON	ON	OFF	OFF	ON	ON	ON	OFF
116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON



# IR PTZ DOME CAMERA

## ADDRESS 129 – 192

Dome address	SW setup							
	1	2	3	4	5	6	7	8
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
143	ON	ON	ON	ON	OFF	OFF	OFF	ON
144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
150	OFF	ON	ON	OFF	ON	OFF	OFF	ON
151	ON	ON	ON	OFF	ON	OFF	OFF	ON
152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
155	ON	ON	OFF	ON	ON	OFF	OFF	ON
156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
157	ON	OFF	ON	ON	ON	OFF	OFF	ON
158	OFF	ON	ON	ON	ON	OFF	OFF	ON
159	ON	ON	ON	ON	ON	OFF	OFF	ON
160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON

Dome address	SW setup							
	1	2	3	4	5	6	7	8
161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
167	ON	ON	ON	OFF	OFF	ON	OFF	ON
168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
171	ON	ON	OFF	ON	OFF	ON	OFF	ON
172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
173	ON	OFF	ON	ON	OFF	ON	OFF	ON
174	OFF	ON	ON	ON	OFF	ON	OFF	ON
175	ON	ON	ON	ON	OFF	ON	OFF	ON
176	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
177	ON	OFF	OFF	OFF	ON	ON	OFF	ON
178	OFF	ON	OFF	OFF	ON	ON	OFF	ON
179	ON	ON	OFF	OFF	ON	ON	OFF	ON
180	OFF	OFF	ON	OFF	ON	ON	OFF	ON
181	ON	OFF	ON	OFF	ON	ON	OFF	ON
182	OFF	ON	ON	OFF	ON	ON	OFF	ON
183	ON	ON	ON	OFF	ON	ON	OFF	ON
184	OFF	OFF	OFF	ON	ON	ON	OFF	ON
185	ON	OFF	OFF	ON	ON	ON	OFF	ON
186	OFF	ON	OFF	ON	ON	ON	OFF	ON
187	ON	ON	OFF	ON	ON	ON	OFF	ON
188	OFF	OFF	ON	ON	ON	ON	OFF	ON
189	ON	OFF	ON	ON	ON	ON	OFF	ON
190	OFF	ON	ON	ON	ON	ON	OFF	ON
191	ON	ON	ON	ON	ON	ON	OFF	ON
192	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON

# IR PTZ DOME CAMERA

## ADDRESS 193 – 254

Dome address	SW setup							
	1	2	3	4	5	6	7	8
193	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
194	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
196	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
197	ON	OFF	ON	OFF	OFF	OFF	ON	ON
198	OFF	ON	ON	OFF	OFF	OFF	ON	ON
199	ON	ON	ON	OFF	OFF	OFF	ON	ON
200	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
201	ON	OFF	OFF	ON	OFF	OFF	ON	ON
202	OFF	ON	OFF	ON	OFF	OFF	ON	ON
203	ON	ON	OFF	ON	OFF	OFF	ON	ON
204	OFF	OFF	ON	ON	OFF	OFF	ON	ON
205	ON	OFF	ON	ON	OFF	OFF	ON	ON
206	OFF	ON	ON	ON	OFF	OFF	ON	ON
207	ON	ON	ON	ON	OFF	OFF	ON	ON
208	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
209	ON	OFF	OFF	OFF	ON	OFF	ON	ON
210	OFF	ON	OFF	OFF	ON	OFF	ON	ON
211	ON	ON	OFF	OFF	ON	OFF	ON	ON
212	OFF	OFF	ON	OFF	ON	OFF	ON	ON
213	ON	OFF	ON	OFF	ON	OFF	ON	ON
214	OFF	ON	ON	OFF	ON	OFF	ON	ON
215	ON	ON	ON	OFF	ON	OFF	ON	ON
216	OFF	OFF	OFF	ON	ON	OFF	ON	ON
217	ON	OFF	OFF	ON	ON	OFF	ON	ON
218	OFF	ON	OFF	ON	ON	OFF	ON	ON
219	ON	ON	OFF	ON	ON	OFF	ON	ON
220	OFF	OFF	ON	ON	ON	OFF	ON	ON
221	ON	OFF	ON	ON	ON	OFF	ON	ON
222	OFF	ON	ON	ON	ON	OFF	ON	ON
223	ON	ON	ON	ON	ON	OFF	ON	ON

Dome address	SW setup							
	1	2	3	4	5	6	7	8
224	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
225	ON	OFF	OFF	OFF	OFF	ON	ON	ON
226	OFF	ON	OFF	OFF	OFF	ON	ON	ON
227	ON	ON	OFF	OFF	OFF	ON	ON	ON
228	OFF	OFF	ON	OFF	OFF	ON	ON	ON
229	ON	OFF	ON	OFF	OFF	ON	ON	ON
230	OFF	ON	ON	OFF	OFF	ON	ON	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
233	ON	OFF	OFF	ON	OFF	ON	ON	ON
234	OFF	ON	OFF	ON	OFF	ON	ON	ON
235	ON	ON	OFF	ON	OFF	ON	ON	ON
236	OFF	OFF	ON	ON	OFF	ON	ON	ON
237	ON	OFF	ON	ON	OFF	ON	ON	ON
238	OFF	ON	ON	ON	OFF	ON	ON	ON
239	ON	ON	ON	ON	OFF	ON	ON	ON
240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
241	ON	OFF	OFF	OFF	ON	ON	ON	ON
242	OFF	ON	OFF	OFF	ON	ON	ON	ON
243	ON	ON	OFF	OFF	ON	ON	ON	ON
244	OFF	OFF	ON	OFF	ON	ON	ON	ON
245	ON	OFF	ON	OFF	ON	ON	ON	ON
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON

# IR PTZ DOME CAMERA

## Appendix I: preventing lightening stoke and surging

This product could prevent effectively under 1500w P lightening, surge and other pulsing signals from striking it with lightening proof like a discharge lamp and TVS plate. However, on the premise of electric safety, protecting measures is necessary in outside installing according to the real situation:

- Signal transmission line should keep the distance at least 50 meters to high pressure equipments and high pressure cables;
- Outside wiring could choose to put under the eaves;
- Arrange the cables through sealed steel pipes laiding underground in the wide area. Don't arrange cables overhead;
- Extra big power lightening proof and lightening rod should be set in the instense thunderstorm area or high induction pressure area;
- The design of lightening protection and earthing in outside setting and line paths should intergrate the building's protection of lightening and meet the requirements of national and industrial standard;
- The system should be electrical bonding. Earthing setting must satisfy double needs of anti-jamming system and electrical safety. Don't short or mix with strong current net's null lines. When gounded separately, impedance can't be more than  $4\Omega$ , and earthing lead lines's sectional area can' be less than  $25\text{ mm}^2$

## Appendix II: Cleansing of transparent cover

To make sure the images made by dome are clean, the dome needs regular cleansing.

Take care when cleansing. Hold the external ring of cover with hands to avoid touching the cover directly. The acid sweat on fingers coat will corrode the outside coating of cover. Hard articles may scrach it that makes the images vague.

Please use dry and soft cloth or other substitutes to wipe inside and outside.

If there is much dirt, normal cleanser could be used. Any advanced furniture cleanser could be used to clean the cover.

## Appendix II: Common knowledge of RS485

### 1. Basic features of RS485

according to the standard of RS485 industry bus, it is a half duplex bus with  $120\Omega$  special impedance. The largest load capacity is 32 effective loads, including main control equipments and controlled equipments.

### 2. transmission distance of RS485

When using 0.56mm(24AWG) cross wire as communication cables, based on different baud rate, the longest transimission distance theoretical value is as follows:

baud rate	the longest distance
2400BPS	1800m
4800BPS	1200m
9600BPS	800m

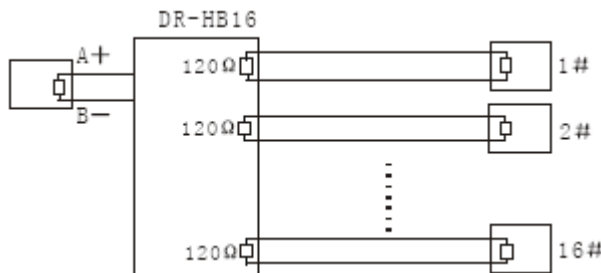
When using thin cables, or using this product under strong electromagnetic interference; when there are many devices on bus, the longest transmission distance will be shortened, on the contrary, it will be lengthened.

# IR PTZ DOME CAMERA

## 3. The troubles in the real practice

during the practical using, users will install it through star connection. Terminal resistance needs be to connect to two devices(pictutr 63) 1# and 15# which are at the farthest place from the line. But as the connection mismatches the using requirement of RS485 industry standard, when the line distance of devices is a little far, it is easy to reflect signal, decline the capacity of anti-jamming and so on, which leads to the decline of the possibility of control the signal, marked by disfluent control of dome and even being out of control.

It is suggested that DR-HB16 RS485 distributor produced by our company could be used in this condition. It could effectively transfer star connection to other connections that obey RS485 industry standard so as to avoid troubles and improve communication reliability.(see picture 64)



Picture64

## 4. The solutions of commom malfunctions of RS485

Malfunction	possible causes	solutions
dome can self-check but not be controlled	A、 host body, dome address and baud rate are different B、 wrong connection between +,-poles of RS485 C、 connection lines get loose D、 RS485 connection lines are stopped	A、 make host body, dome address and baud rate are the same. B、 correct the wrong connection of +,-poles. C、 tighten the connection D、 change the RS485
dome can be controlled but not fluent	A、 loose connection of RS485. B、 one of the RS485 lines is broken C、 from dome. D、 too much dome splices	A、 reconnect the RS485 B、 change the RS485 C、 install terminal matched load resistance D、 install RS485 distributor DR-HB16

# IR PTZ DOME CAMERA

## Appendix VI: Simple malfunction debugging

malfunction	possible cause		solution
no action and images when power up	Red LED on the power panel doesn't come on	1. 24v alternating current doesn't connect to pinboard's jack or doesn't connect well.	1. check if 24v AC power connects or not. Make sure jack connects well.
		2. power or transformer troubles	2. Check if power and 24v AC transformer work well.
		1. 24v AC transformer outputs low pressure. 2. pinboard troubles	1. measure load voltage on dome with multimeter. If the voltage is lower than 24VAC, it is beyond the dome's working voltage range. 2. Please contact the suppliers and change another pinboard.

## Appendix VII: Technical parameter

Power	AC24±4V, 50Hz
Power consumption	indoor ball: 15W outdoor ball: 55W
Demoder	Build in
Electric motor	Stepper motor
Sync. system	Mains hold
Preset	256 presets
Cruising scan	6 lines
Pattern scan	4 lines, each piece can record 5-500 minutes
left-right scan	1 line
Privacy protection	8 zones
Alarm input/output	input: 6, output: 2
Information display	Dome tilt, preset tilt, mode scan tilt, right and left tilt, location scan tilt, lens zoom times, alarm index, time index
Automatic control of focus speed	Self regulate the control speed according to the focus length (when proportion control setting is open)
Automatic rotate function	automatically rotate 180° when vertical 90°
Automatic aclinic scan	360° is available
Call highest speed of transferring preset	400°/s
The speed of aclinic manual rotation	0.5°—200°/s
Aclinic rotation range	360° constant rotate
The speed of vertical manual rotation	0.5°—180°/s
Pitching range	vertical 90°
Control ways	RS485
Communication baud rate	2400/4800/9600/19200bps
Network Interface	10Base-T / 100Base-TX, RJ45 (Optional fiber optic interface)
Default IP ID	192.0.0.64

## IR PTZ DOME CAMERA

Image Resolutio	704×576
video compression	H.264
Network protocol	TCP/IP, HTTP, DHCP,DNS,RTP/RTCP,PPPoE (FTP,SMTP,NTP,SNMP, Can be added)
the number of users visit at the same time	A maximum of 6
Dual-stream	support
user's privileges	3 users: administrator, operator and can only visit
safe mode	Authorized user name and password, and MAC Address Binding
Environment temperature	indoor ball: -10~+50 °;Coutdoor ball: -40~+60 °C